

Bonner zoologische Beiträge	Band 53 (2004)	Heft 1/2	Seiten 255–282	Bonn, Juni 2005
-----------------------------	----------------	----------	----------------	-----------------

Revision of the *vincita* Species-group of *Monolepta* Chevrolat, 1837 from Africa, Arabia and the Near East (Coleoptera: Chrysomelidae, Galerucinae)^{*1}

Thomas WAGNER

Universität Koblenz-Landau, Institut für Integrierte Naturwissenschaften – Biologie, Koblenz

Abstract. Specimens of *Monolepta* Chevrolat, 1837 from Africa, the Arabian Peninsula and the Near East, which are characterized by yellow elytra with transverse black bands at base and in the apical third, are revised. This coloration is typical for most specimens of *M. vincita* Gerstaecker, 1871, a widely distributed and the most abundant species of *Monolepta* in Africa. Nine junior synonyms of this species could be found: *M. alternata* Chapuis, 1879, *syn. n.*; *M. insignis* Weise, 1903, *syn. n.*; *M. sjöstedti* Weise, 1909, *syn. n.*; *M. ugandaensis* Laboissière, 1920, *syn. n.*; *M. lusingensis* Laboissière, 1920, *syn. n.*; *M. bouvieri* Laboissière, 1920, *syn. n.*; *M. striola* Laboissière, 1920, *syn. n.*; *M. consociata* Laboissière, 1920, *syn. n.*; *M. rugifrons* Laboissière, 1920, *syn. n.*; *M. femoralis* Laboissière, 1940, *syn. n.*. Further species herein revised are *M. melanogaster* (Wiedemann, 1823) (= *M. bizonata* Chevrolat, 1837, *syn. n.*); *M. buquetii* Chevrolat, 1837; *M. lepida* Reiche, 1858. Newly described species are *M. sharonae* sp. n., *M. ronbeeneni* sp. n., and *M. naumanni* sp. n. Lectotypes are herein designated for: *M. insignis* Weise, 1903; *M. sjöstedti* Weise, 1909; *M. lusingensis* Laboissière, 1920; *M. femoralis* Laboissière, 1940. Distribution maps and an identification key for these species are given.

Key words. Afrotropical region, Arabian Peninsula, Israel, taxonomy, biogeography, synonyms, lectotype, new species

1. INTRODUCTION

In the last catalogue of the Galerucinae (WILCOX 1973), 180 species of *Monolepta* Chevrolat, 1837 from tropical Africa were listed. Most of these species were described between 1890 and 1950 (WAGNER 2003a). With very few exceptions, the descriptions by preceding authors were based on external characters only. The allocation to *Monolepta* and other genera of the “Monoleptites” (WILCOX 1973) was mostly typological. In an ongoing revision of this group, the afrotropical species of *Monolepta* turned out as polyphyletic, and many species need to be transferred to other groups (WAGNER 2004). Many synonyms particularly in widely distributed species, but also many undescribed species could be found (WAGNER 2000a, b; 2001, 2002, 2003b).

In this paper, afrotropical *Monolepta*, which have yellow to yellowish-red elytra, usually two transverse black elytral bands at base and in the apical third, are revised. Head and prothorax are mostly yellow to red, rarely black; abdomen is yellow, in a few species sometimes entirely black or rarely only last abdominal segments black. The revision includes the most abundant afrotropical *Monolepta* species, *M. vincita*, which is described from Mombasa, Kenya. Wide distribution, high abundance and the high polymorphic coloration have

led to a high number of synonyms. A further two species of this coloration type have been listed in the Dejean catalogue by CHEVROLAT (1837), *M. buquetii* from Senegal and *M. bizonata* from the Cape of Good Hope. The latter could be identified as a junior synonym of *M. melanogaster* described by WIEDEMANN (1823) also from the Cape of Good Hope using specimens with entirely black abdomen. The fourth valid species is *Monolepta lepida* described by REICHE (1858) from Palestine, a species which occurs also throughout the Arabian Peninsula and in northeastern Africa. Since the original description of most species are very short and lack the description of genitalic patterns, redescriptions are given for all species. *Monolepta buquetii* was never described, but there exist an indication in the Dejean catalogue only. Finally, three species with this peculiar coloration are described as new.

2. METHODS

A standard set of figures is given for each species. These include illustrations of the coloration (dorsal view), including the right antenna, where black coloration is indicated by black, yellow coloration by white, red coloration by dot-shading, and brown by black shading. The basal four antennal articles of two different males and females, dorsal and lateral view of the median lobe including the endophallic structures, and ventral view of the median lobe without the endophallic structures (for classification see WAGNER 2000), the spermathecae of three (if available) different females, and bursa-sclerites usually of one female are figured.

* Revision of afrotropical *Monolepta* Chevrolat, 1837 – Part V. 19th contribution to the taxonomy, phylogeny and biogeography of afrotropical Galerucinae

¹ In commemoration of Clas Michael Naumann zu Königsbrück (26.06.1939 – 15.02.2004)

Morphometric measurements were made for external characters. Absolute measurements are: Total length from the clypeus to apex of the elytron, length of elytron, maximal width of both elytra (usually in the middle or posterior third of the elytra), and width of pronotum. Relative measurements are: Length to width of pronotum, maximal width of both elytra to length of elytron, length of second to third antennomere, and length of third to fourth antennomere. The number of specimens measured is given in the description under "total length".

3. MATERIAL

The subsequent redescriptions and descriptions are based on labelled specimens from the following collections. Acronyms used and responsible curators in brackets: Bishop Museum, Honolulu (BPBM; A. Samuelson); The Natural History Museum, London (BMNH; S. Shute, M. Brendell, M. Cox); private collection Ron Beenens, Nieuwegein, The Netherlands (CBe); private collection Jan Beždek, Brno, Čech Republic (CBz); private collection Manfred Döberl, Abensberg, Germany (CDö); private collection Uwe Heinig, Berlin, Germany (CHe); private collection Horst Kippenberg, Herzogenaurach, Germany (CKi); private collection Joachim Mauser, Germany (CMa); private collection Vladimir Medvedev, Moscow, Russia (CMe); Deutsches Entomologisches Institut, Münchenberg (DEI; L. Behne, L. Zerche); Hungarian Museum of Natural History, Budapest (HNHM; O. Merkl); Instituto de Investigação Científica Tropical, Lisboa (IICT; L. F. Mendes); Institute Royal des Sciences Naturelle de Belgique, Brussels (IRSNB; M. Cludts, D. Drugmand); Museo Civico di Storia Naturale, Genova (MCSN; R. Poggi); Museu de Catalunya, Barcelona (MCTB; G. Masó); Museo ed Instituto di Zoologia Sistematica, Università di Torino (MIZT; M. Daccordi); Musée National d'Histoire Naturelle, Paris (MNHN; N. Berti); Museum für Naturkunde der Humboldt Universität zu Berlin (ZMHB; J. Frisch, H. Wendt, M. Uhlig); Musée Royal d'Afrique Centrale, Tervuren (MRAC; M. de Meyer); Museum of Zoology, Helsinki (MZHF; H. Silfverberg); Museo Zoologico "La Specola", Firenze (MZUF; L. Bartolozzi); Naturhistorisches Museum Basel (NHMB; E. Sprecher-Übersax, M. Brancucci); Naturhistorisches Museum Wien (NHMW; H. Schönmann); Naturhistoriska Riksmuseet, Stockholm (NHRS; B. Viklund); National Museums of Kenya, Nairobi (NMK; W. Kinuthia, K. Maes); National Museum of National History, Washington (USNM; D. Furth); National Museum of Namibia, Windhoek (NMNW; E. Marais); Oxford University Museum of Natural History (UMO; G. McGavin); South African National Collection, Plant Protection Research Institute, Pretoria (SANC; E. Grobelaar); South African Museum, Cape Town (SAMC;

M. Cochrane); Transvaal Museum, Pretoria (TMSA; S. Gussmann); Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn (ZFMK; M. Schmitt, K. Ulmen); Zoological Institute St. Petersburg (ZISP; A. Kirejtshuk); Zoological Institute University of Copenhagen (ZMUC; M. Hansen); Zoologisches Institut und Zoologisches Museum der Universität, Hamburg (ZMUH; R. Abraham).

For location data, geographical coordinates were given in degree and minute. These coordinates were mostly taken from the Alexandria Digital Library Gazetteer Server. Locations of the former Belgian Congo were in particular taken from a gazetteer compiled by Ugo Dall'Asta (MRAC).

4. REDESCRIPTIONS AND DESCRIPTION OF SPECIES

Monolepta melanogaster (Wiedemann, 1823)

= *Galleruca melanogaster* Wiedemann, 1823: 77.

= *Monolepta bizonata* Chevrolat, 1837: 407, **syn. n.**

Redescription.

Total length 3.80–5.60 mm (mean: 4.81 mm; n = 12).

Head. Red, frons often yellowish-red (Fig. 1), about 15 % of specimens examined with dark brown or black vertex (Fig. 1a). Antennae pale yellow to reddish-yellow, last antennomere or its tip only brown, rarely black, antennomeres 4 to 10 about 4 times long than broad at apex. Length of antennomeres two to three 0.86–1.00 (mean: 0.96), length of antennomeres three to four 0.30–0.41 (mean: 0.35). Third antennomere particularly in large males very broad (Fig. 2a).

Thorax. Prothorax reddish-yellow (Figs 1a, b), in about 20 % of material examined yellow (Fig. 1c). Pronotal width 1.15–1.70 mm (mean: 1.42 mm), pronotal length to width 0.60–0.65 (mean: 0.63), very finely punctured. Elytra pale yellow to yellow with broad black base which is often smaller than in (Figs 1a, b) and can be reduced to broad black margins like in Fig. 1c in about 10 % of material examined, subapical elytral transverse black band usually broad, rarely smaller, but not reduced to a circular spot. Elytral length 2.90–4.20 mm (mean: 3.67 mm), maximal width of both elytra 1.90–2.85 mm (mean: 2.58 mm), maximal width of both elytra to length of elytron 0.68–0.72 (mean: 0.70). Scutellum red to yellowish-red. Meso- and metathorax, coxa, trochanter an basal two thirds of femur red to reddish-yellow, outer parts of legs yellow.

Abdomen. Yellow, in 12 % of material examined black.

Female genitalia. Spermatheca with spherical nodulus, comparatively broad middle part and cornu (Fig. 3).

Dorsal part of bursa sclerites triangular (Fig. 4a), ventral part slender, outer margin serrate to undulate (Fig. 4b).

Male genitalia. Median lobe conical, straight, apical part lanceolate, slightly widened beyond apex, apical half with significantly visible short hairs (Fig. 5a). Tectum pointed, ventral groove parallel-sided, slender (Figs 5b, c). Dorsal pair median endophallic spiculae strong, slightly bent inwards, other median spiculae slender, straight, ventral spiculae separated in two portions, hooked at apex, two pairs of slightly curved lateral spiculae, both of same size and orientation (Fig. 1b).

Distribution. Widely distributed and abundant in southern Africa. In Central Africa northwards towards northeastern Congo and western Uganda (Fig. 6).

Diagnosis and discussion. On average the largest species of the coloration type is characterised by two transverse black bands. Specimens with a total length of more than 5 mm from Central or southern Africa belong to this species. Only some specimens of *M. lepida*, which is restricted to Somalia, Eritrea and Egypt, and occurs also in Arabia and the Near East, can be up to 5.5 mm. *Monolepta melanogaster* has shorter basal antennomeres than *M. lepida* (length of second to third antennomeres: 0.86–1.00, *M. lepida*: 0.75–0.88; length of third to fourth antennomeres: 0.30–0.41, *M. lepida*: 0.46–0.54), has a broader pronotum (pronotal length to width: 0.60–0.65; *M. lepida*: 0.63–0.67) and both species are allopatrically distributed.

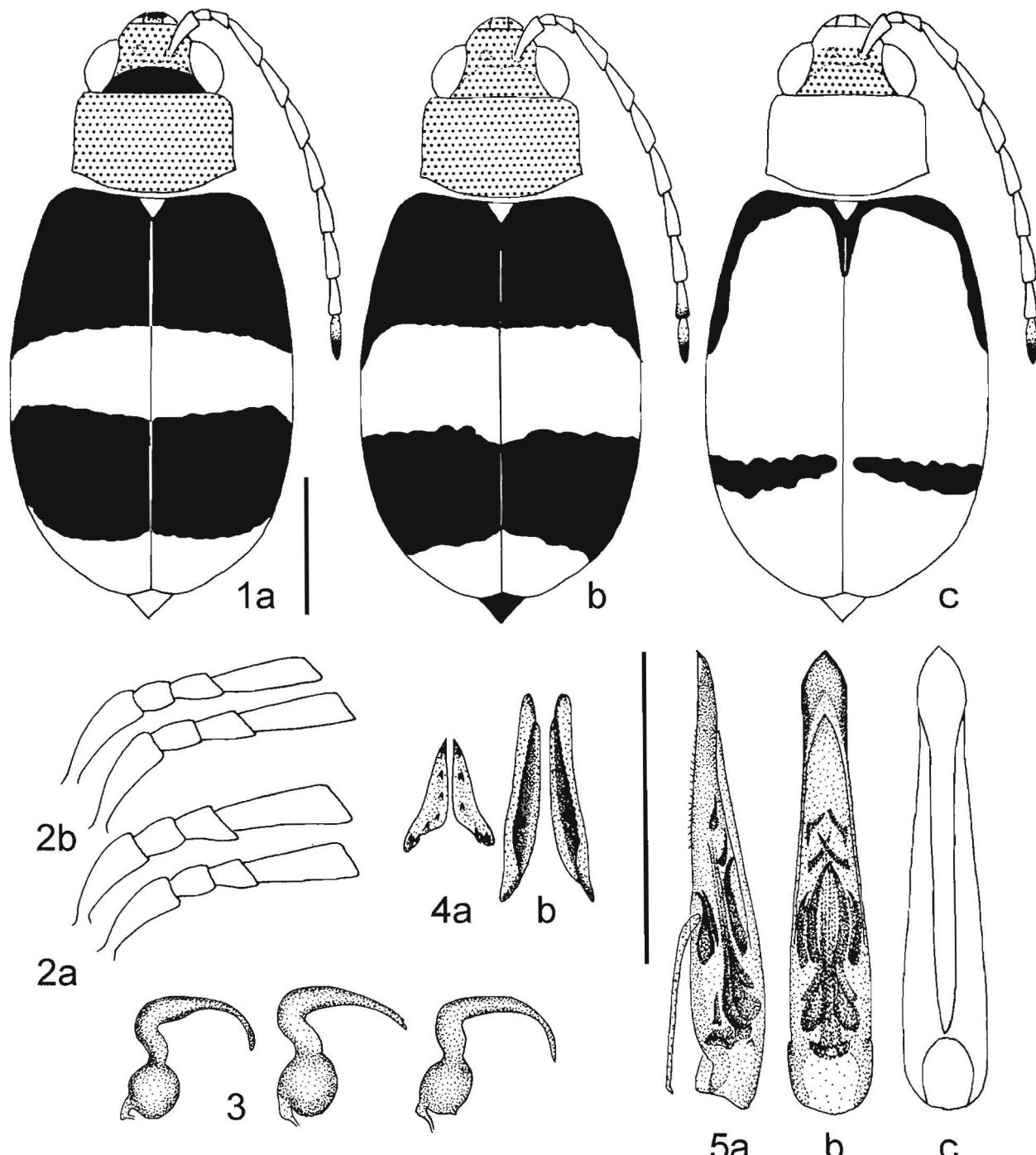
Smaller specimens can be very similar to *M. vinccta*, which is presumably most closely related to *M. melanogaster*. It can be distinguished on average by broader elytra (maximal width of both elytra to length of elytron: 0.68–0.72; *M. vinccta*: 0.69–0.75), and shorter antennae. The median lobe is more homogeneously conical with slightly widened apex in *M. melanogaster* (Fig. 5b), while in *M. vinccta* the apical part is more slender (Figs 23b, 24b). The endophallic armature of both species is very similar and only size and shape of the lateral spiculae show some constant differences (Figs 5b, 23b, 24b).

Some specimens can be hardly distinguished by external and genital morphology. Some doubt remains if these are two distinct species, a question which might be only solved by using molecular data. At this stage I prefer a specific differentiation supported mainly by geographic distribution, and variation of body size and colour pattern. From two locations, Garamba National Parc in north-eastern Congo, and Kibale Forest in western Uganda large series were collected. Both species occur syntopically at these sites and seem to be genetically separated. *Monolepta vinccta* shows high polymorphic coloration (Figs 18c, e) at this site, while *M. melanogaster* occurs only in one coloration type (Garamba

Parc: Fig. 1c; Kibale Forest: Fig. 1b) and can be easily distinguished by significantly larger body size and by constant and comparatively high differences in male genital characters. This might be interpreted as character displacement of closely related distinct species when they occur syntopically. In South Africa and Namibia, and most parts of Zimbabwe, Zambia and southern Moçambique no specimens of “typical” *M. vinccta* could be found and all specimens of the peculiar coloration type are assigned to *M. melanogaster*. In these countries many *M. melanogaster* are much smaller and on average of the same size as *M. vinccta*. Only specimens from some populations, particularly from coastal areas of the Cape Region are larger.

Type material. Type specimens of *Galleruca melanogaster* Wiedemann, 1823 were not available, but species identity can be derived from the original description and several specimens from old collections bearing identification labels. — *Monolepta bizonata*. Holotype: ♀ “e. coll. Chev.” / *Monolepta bizonata* Chev. C. b. Sp. / Holotype” (BMNH); type locality: South Africa, Cape of Good Hope, 33.56S/18.28E. CHEVROLAT (1837: 407) listed this species in the third edition of the Dejean catalogue. The species was never described, but the name is available by indication (article 12.2, ICZN rules).

Further material examined. **Angola:** 1 ex., Tchivinguire, Huila, 15.00S/13.20E, XI.1974 (NMNW); 1 ex., Cahama, 15 km E, 16.18S/14.28E, XII.1974 (NMNW). — **Botswana:** 1 ex., Betsuanaland, Gaberones, 24.40S/25.55E, IX.1915, Ellenberger (MNHN); 1 ex., Serowe, XI.1985, P. Forchhammer (NMHB); 10, Serowe, VII.–IX.1988, P. Forchhammer (SANC). — **Burundi:** 1 ex., Bururi, 3.58S/29.35E, P. Giraudin, ex coll. Breuning (MRAC). — **Congo:** 1 ex., Kasai, Kondué, 4.57S/23.31E, E. Luja (MRAC); 1 ex., Kisantu, 5.07S/15.05E, P. Goosens (MRAC); 1 ex., Amadi, 3.35N/26.47E, III.1913, van den Plas (MRAC); 1 ex., Malela, 2.28S/26.09E, XII.1913, L. Burgeon (MRAC); 1 ex., Albertville, 5.56S/29.12E, XII.1918, R. Mayné (MRAC); 3 ex., Haut-Uele, Moto, 2.27N/26.25E, 1920, IV.–V.1923, L. Burgeon (MRAC); 2 ex., Haut-Uele, Abimva, 3.09N/29.50E, V.–VII.1925, L. Burgeon (MRAC); 2 ex., Lomami, Kaniama, 7.34S/24.11E, 1931, R. Massart (MRAC); 1 ex., Equateur, 00.05S/18.14E, IV.1932, P. Hulstaert (MRAC); 1 ex., Eala, 0.04N/18.17E, IV.1936, Henrard (MRAC); 5 ex., Lukolela, 1.03S/17.12E, 1937, R. Massart (IRSNB); 5 ex., Bambesa, 3.28N/25.43E, IV.1937, I.1940, J. Vrijdagh (4 IRSNB, 1 MRAC); 1 ex., Bas Congo, Mayidi, 5.11S/15.09E, 1942, van Eyen (MRAC); 1 ex., Lusinga, 8.56S/27.12E, 1760 m, IV.1947, G. F. de Witte (IRSNB); 1 ex., Kalanga, 9.34S/27.08E, Grotte de Kakontwé, VIII.1948, N. Leleup (MRAC); 1 ex., Basoko, 1.14N/23.36E, IV.1948, L. G. Benoit (MRAC); 1 ex., Stanleyville, Yaolema, 0.43N/24.28E, IV.1949, R. Laurent (MRAC); 102 ex., P. N. Garamba, 3.40N/29.00E, several locations, V.1950, IX.–XII.1951, V.1952 (54 ex. IRSNB, 48 ex. MRAC); 1 ex., Tshuapa, Bokuma, 0.06S/18.42E, V.1952, P. Lootens (MRAC); 2 ex., Elisabethville, 11.40S/27.28E, I.1956–I.1957, Ch. Seydel (MRAC). — **Congo, Republic:** 1 ex., reg. de Brazzaville, 4.00S/15.00E, 1906, Dupuy (MNHN). — **Malawi:** 6 ex., Blantyre, 15.47S/35.00E, 1910, Dr. J. E. S. Old (BMNH); 3 ex., Mlanje, 16.05S/36.29E, XII.1912, S. A. Neave (BMNH); 5 ex., 50 km N Zomba, Liwonde, 15.22S/35.22E, VIII.2000, L. Schmidt (ZFMK). — **Moçambique:**



Figs 1–5: *Monolepta melanogaster* (Wiedemann, 1823) 1: colour pattern; 2: basal antennal articles (a: ♂, b: ♀); 3: three different spermathecae; 4: bursa-sclerites (a: dorsal, b: ventral); 5: median lobe (a: lateral, b: dorsal, c: dorsal). Scale for colour pattern different from same scales for basal antennal articles and genital structures: each 1 mm. Same for all following figures.

1 ex., Beira, 19.49S/34.52E, (SAMC); 1 ex., Chibababa, Lower Buzi R., 19.52S/34.45E, XII.1906, C. F. M. Swynnerton (BMNH); 3 ex., Pomene, 22.59S/35.35E, V.1975, beaten, costal bush, A. Strydom (TMSA). – **Namibia:** 1 ex., Kapako, Okavango, 18.01S/21.22E, XII.1954 (NMNW); 1 ex., Andara, SE 1821 Ab, Kavango, 18.04S/21.27E, VIII.1971 (NMNW); 11 ex., Nyangana, Okavango, 18.00S/20.41E, I.1985, H. Roer (ZFMK); 5 ex., E-

Caprivi, Katima Mulilo, 17.29S/24.17E, III.1992, U. Göllner, M. Uhlig, lux (ZMHB); 1 ex., Kavango, Mahango GR, 18.14S/-21.43E, X.1993, F. Koch (ZMHB); 2 ex., Popa falls, 18.07S/-21.34E, XII.1993, M. Uhlig (ZMHB); 1 ex., Okavango, Bagani, Popa falls, 18.07S/21.34E, I.1995, F. Kantner (CKa); 1 ex., Popa Camp, II.1998, U. Göllner (ZMHB). – **South Africa:** 3 ex., Cap b. Sp., 33.56S/18.28E, 1817, “*melanogaster* Wied.”, Mus.

Westerman (ZMUC); 1 ex., ex coll. Laferté, „*Monolepta bizonata* Chevr.; C. B. Sp. Verraux“ (BMNH); 1 ex., Cap Diege, coll. Haag, „*Monolepta* Er. / *bizonata* Chev.“ (DEI); 1 ex., coll. Clavareau, coll. Chapuis, „*Monolepta pulchella* Klug / *Monolepta duplicata* Sahlb. = *pulchella* 1, Klug (MRAC); 1 ex., Cape Colony, coll. Clavareau, *Monolepta pulchella* Klug, Determinat Jacoby (MRAC); 2 ex., „*Galleruca atrofasciata* Diege Cap“ (Halle); 1 ex., „*alternans*, N, *Crio. bifasciata*, Fab.?, Krebs, Pr. B. Sp., Lichtenst. / 30377 (ZMHB); 8 ex., Cap, ex coll. J. Weise (ZMHB); 1 ex., Cap, coll. de Bonvouloir (MNHN); 4 ex., P. B. Sp. (UMO); 1 ex., Cap B. Spei, Victoria (NHRS); 1 ex., Cape Town, coll. Jacoby (BMNH); 2 ex., Alexandria, Dorn Nek, J. L. Drege (SAMC); 5 ex., Caffraria, J. Wahlberg (NHRS); 1 ex., Caffra, coll. Fry (BMNH); 2 ex., Capland, Willamore, Dr. Brauns (BMNH); 3 ex., Kapland (ZMHB); 1 ex., Dunbrody, Cape Colony, 33.28S/25.33E, coll. Jacoby (BMNH); 4 ex., Transvaal, Fruhsdorfer (ZMHB); 4 ex., Transvaal (BMNH, MNHN, ZMHB, ZMUH); 6 ex., Transvaal, Lydenburg, 25.06S/30.27E, F. Wilms (ZMHB); 4 ex., Transvaal, Lydenburg (IRSNB); 1 ex., Transvaal, Pietersburg (BMNH); 1 ex., Grahamstown, 33.17S/26.32E, C. le Doux (ZMHB); 5 ex., Barberton, 25.48S/31.03E, P. Rendaff (BMNH); 4 ex., Natal (1 BMNH, 3 MNHN); 1 ex., Natal, Marshall, Jacoby coll. (BMNH); 4 ex., Natal, Estcourt, 29.00S/29.53E (SAMC); 1 ex., Natal, Frere, 28.53S/29.46E (SAMC); 1 ex., Wydah, R. P. Ménager (MNHN); 1 ex., Port Natal, 28.30S/30.30E, Boheman (ZMHB); 3 ex., Zoutpansberg, 28.10S/32.15E, Shilouvane, Junod, coll. Clavareau (MRAC); 1 ex., Port Elisabeth, 33.50S/25.45E, 1882, S. D. Bainslow, „*Monolepta bifasciata*, named 1899 by M. Jacoby“ (UMO); 2 ex., Natal, Frere, 28.53S/29.46E, VI., X.1892, G. A. K. Marshall, on roses (BMNH); 11 ex., Natal, Estcourt, VIII.-X.1892, IX., IX., XI.1896, G. A. K. Marshall (BMNH); 1 ex., Transvaal, Hammanskraal, 25.24S/28.16E, 1893, E. Simon (MNHN); 1 ex., Oranje FS, Mateles Pic, 2400 m, I.1896, J. Thode (ZMHB); 1 ex., Maritzburg, 29.38S/30.24, II.1896, P. Cregoe (MNHN); 6 ex., Natal, Malvern, 29.53S/30.55E, I.1896, II., VIII., X.1897, XII.1899, G. A. K. Marshall (BMNH); 1 ex., Natal, Umgeni, 29.48S/31.03E, VII.1897, G. A. K. Marshall (BMNH); 1 ex., C. Bon. Spei, 1900, coll. Fry (BMNH); 1 ex., Transvaal, Sterkfontein, 24.42S/30.15E, 1900, H. P. Thomasset (BMNH); 1 ex., Natal, Upper Tongaat, 29.34S/30.45E, Barwon, 1600 ft, X.1901, G. A. K. Marshall (BMNH); 1 ex., Lower Tugela, 29.14S/31.30E, X.1901, *Monolepta melanogaster* Wied. (SAMC); 1 ex., Natal, Lower Tugela, 1902, E. Reynolds (BMNH); 2 ex., Durban, 29.51S/31.01E, 1902, F. Muir (BMNH); 1 ex., Transvaal, Zoutpansberg, 28.10S/32.15E, XII.1907, Knothe (ZMHB); 1 ex., Escort, Mrs. E. J. Turner, 1909 (BMNH); 1 ex., Natal, Nw. Hanover, 28.03S/29.39E, X.1914 (SANC); 4 ex., East London, 33.02S/27.54E, IX., XII.1915, 1923, R. Ellenberger (MNHN); 2 ex., Pietermaritzburg, Fort Napier, 29.38S/30.25E, 1919 (ZMHB); 7 ex., Transvaal, Piet Retief, 27.00S/30.49E, II.1920, feeding on petals of bean flowers (3 BMNH, 4 SANC); 1 ex., Natal, Durban, VIII.1920, A. F. J. Gedye (NMK); 1 ex., Umatata, Transkei, 31.35S/28.47E, II.-III.1923, R. E. Turner (BMNH); 4 ex., Port St. John, 31.25S/29.30E, Pondoland, IV., VII.1923, R. E. Turner (BMNH); 1 ex., Natal, Weenen, 2840 ft, 28.05S/30.06E, VII.-IX.1923, H. P. Thomasset (BMNH); 1 ex., Aliwal North, Cape Prov., 30.41S/26.42E, XII.1923, R. E. Turner (BMNH); 1 ex., Transvaal, Machadodorp, 25.40S/30.15E, IV.1926, M. Mossop (SANC); 4 ex., S. Zululand, Gingindhlovu, V.1926, R. E. Turner (BMNH); 1 ex., Zululand, Eshowe, 2853S/31.28E, Turner (BMNH); 2 ex., Natal, Drakensberg, 28.43S/28.53E, van Reenen (BMNH); 1 ex., Oranje FS, Harrismith, 28.17S/29.08E, III.1927, R. E. Turner (BMNH); 2 ex., Somerset East., Cape Prov., 32.43S/25.35E, IX.1930, R. E. Turner (BMNH); 1 ex., Natal NaFauresmith, 29.45S/25.19E, V.1932, Dr. Henrici (1 BMNH, 4 SANC); 7 ex., Natal, Dundee, 28.10S/30.13E, VIII.1932 (2 BMNH, 5 SANC); 4 ex., Katberg, E. Cape Prov., 32.32S/26.41E, I.1933, R. E. Turner (BMNH); 1 ex., Bainskloof, 33.35S/19.08E, IX.1938, L. D. Brongerama (NNML); 1 ex., Natal NP, 60m v. Ladysmith, X.1938, L. D. Brongerama (NNML); 1 ex., Zululand, Mkuzi, XII.1945, DDT killed (SANC); 2 ex., Pretorius Kop, X.1950, H. K. Munro (SANC); 1 ex., Schoemanskloof, E. T., VI.1951, H. K. Munro (SANC); 1 ex., Natal, Richmond, XII.1954, ex coll. Breuning (MRAC); 1 ex., Natal, Durban, I.1955, K. Mannonen (Helsinki); 3 ex., Natal, Indaleni, 29.54S/30.17E, X.1956, Rev. W. Hunt, ex coll. Breuning (MRAC); 1 ex., Natal, Southbroom, 30.55S/30.19E, VII.1956, ex. coll. Breuning (MRAC); 1 ex., Politzi, VII.1966, P. Pali. (SANC); 1 ex., 32 m SW Louis Trichardt, X.1966 (SANC); 1 ex., Cape Prov., Kei Bridge, 32.31S/27.58E, I.1970, Cl. Besnard (MRAC); 2 ex., Zululand, Ndugu GR, 26.55S/32.19E, IV.1970, C. Besnard (MRAC); 1 ex., Zululand, Hluhluwe GR, 28.05S/32.04E, IX.1970, O. Bourquin (TMSA); 2 ex., Transvaal, Debegeni Falls, 5 km SE Magoebaskloof, II.1973, A. Prinsloo & T. Bouweri (SANC); 1 ex., Transvaal, Tswane, III.1973, A. Prinsloo (SANC); 1 ex., Zululand, Dukuduku Forest, 28.22S/32.19E, IV.1974, S. Endrödy-Younga, indig. forest litter (TMSA); 1 ex., Zululand, Empangeni, 28.45S/31.54E, IV.1975, P. E. Reavel (TMSA); 5 ex., Zululand, St. Lucia, Mission Rock, 28.22S/32.35E, XII.1975, S. Endrödy-Younga, at black light (TMSA); 1 ex., Natal, St. Lucia Mission Rocks, 28.22S/32.25E, XII.1975, S. Endrödy-Younga, at uv-light (TMSA); 1 ex., Transvaal, Naboomspruit, Libertas, 24.27S/28.33E, XI.1976, C. G. E. Moolman (SANC); 1 ex., Natal, Nyala GR nr Empangeni, 28.42S/31.46E, VIII.1977, P. Reavell (SANC); 1 ex., Austenburg, Kloof, IV.1978, coll. M. Keeping (TMSA); 1 ex., Transvaal, Pretoria, 25.45S/28.12E, XII.1978, C. G. Moolman (SANC); 2 ex., Transvaal, Barberton, 25.48S/31.03E, III.1979, C. Moolman (SANC); 1 ex., Transvaal, Grahamstown, III.1979, G. L. Prinsloo (SANC); 2 ex., Transvaal, Mogol NR, Ellisras Distr. 23.58S/27.45E, XI.1979, II.1984, C. D. Eardley (SANC); 1 ex., Transkei, Dwesa Forest, 32.17S/28.50E, XII.1979, S. Endrödy-Younga, flowering *Acacia* (TMSA); 4 ex., Transvaal, Mogoto NR, Zebediela, 24.15S/29.13E, X.1979, III.1980, G. L. Prinsloo et al. (SANC); 1 ex., Percy Fyfe NR, 24.03S/29.09S, III.1980, C. Kok (SANC); 8 ex., Kwa-Zulu, lake Sibaya, E shore, 27.22S/32.43E, I.1981, C. D. Eardley (SANC); 1 ex., Natal, Nottingham Road, 29.22S/29.59E, I.1981, S. J. v. Tonder & C. Kok (SANC); 1 ex., Natal, Cape Vidal, 28.10S/32.32E, I.1981, R. G. Oberprieler (SANC); 1 ex., Transvaal, Pretoria, Roodeplaat, 25.41S/28.18S, I.1983, C. Moolman (SANC); 1 ex., Cape Province, Knysna, 34.02S/23.03E, XI.1983, R. Oberprieler (SANC); 1 ex., Natal, Ngoye Forest, 1984, inside cumbers (BMNH); 2 ex., Natal, Pietermaritzburg, Town Bush Forest, 29.36S/30.23E, II.1984, C. G. E. Moolman (SANC); 1 ex., Natal, Mt. Nhlosane nr Dargle, 1600 m, 29.33S/29.56E, II.1984, C. G. E. Moolman (SANC); 1 ex., Natal, Wembezi nr Estcourt, 29.04S/29.46E, II.1984, C. G. E. Moolman (SANC); 1 ex., Natal, Balgowan, 29.23S/30.20E, II.1984, R. Oberprieler & C. G. E. Moolman (SANC); 3 ex., Franskraal distr., Suikerbosrandfarm, W. Cape, IX.1984, W. Wittmer (NHMB); 2 ex., Kogmanskloof, 200 m, Cape Prov., X.1984, W. Wittmer (NHMB); 1 ex., S. Cape Prov., Herbertsdale, 34.01S/21.46E, X.1984, R. Müller (TMSA); 5 ex., E Cape Prov., 35 km N Grahamstown, 32.57S/26.09E, X.1984, S. Endrödy-Younga, ground & vegetation (TMSA); 1 ex., Cape Province, Mitchell's Pass nr Ceres, 33.23S/19.27E, XI.1984, C. Eardley (SANC); 1 ex., Cape Province, Saasveld nr George, 33.57S/22.35E, II.1985, W. Breytenbach (SANC); 1 ex., S. Natal, Weza-Lovedale, 30.40S/29.41E, III.1985, S. Endrödy-Younga, sift. indig. for. litt. (TMSA); 1 ex., Transvaal, Messina, V.1985,

Naudé (SANC); 1 ex., SW Cape, Clanwilliam, 32.09S/18.53E, IX.1985, on vegetation on flood plain (TMSA); 1, Transvaal, Letsitele, 23.52S/30.24E, X.1985, S. Kamburow (SANC); 1 ex., Transvaal, Bourkes Luck, 24.40S/30.48E, II.1986, C. D. Eardley (SANC); 1 ex., Transvaal, Louis Trichardt, 800 m, 23.03S/29.49E, II.1986, D. d'Hotman (TMSA); 1 ex., E. Cape, Grahamstown, 33.19S/26.31E, VI.1986, S. van Noort (SAMC); 1 ex., Meiringspoort, 33.24S/22.33E, IX.1986, N. MacPherson (SAMC); 5 ex., Transvaal, Entabeni FR, 33.00S/30.16E, I.1987, C. D. Eardley (SANC); 1 ex., Transvaal, Hans Merensky NR, 23.42S/30.44E, I.1987, B. Grobbelaar (SANC); 5 ex., Transvaal, Swadini, Blydepoort NR, 24.32S/30.54E, I.1987, B. Grobbelaar (SANC); 1 ex., Transvaal, Modjadji NR, 23.38S/30.20E, I.1987, C. D. Eardley (SANC); 5 ex., Transvaal, Nelspruit Knuckles Rocks Forest, 25.47S/30.50E, II.1987, S. Endrödy-Younga, beating in forest (TMSA); 1 ex., Transvaal, Uitsoek waterfall, 25.16S/30.33E, II.1987, S. Endrödy-Younga, beating (TMSA); 7 ex., OFS, Tussen Die Riviere Res. nr Bethulie, 30.30S/26.12E, III.-IV.1987, B. Grobbelaar (SANC); 2 ex., Transvaal, Wylliespoort, Ingwe Motel, 22.58S/29.57E, II.1988, G. D. Butler (SANC); 1 ex., Transvaal, Kruger NP, Satara, 24.23S/31.46E, 350 m, II.1988, B. Grobbelaar (SANC); 2 ex., Transvaal, Meiringspoort, Groot Swartberge, 33.33S/22.19E, XI.1988, R. Oberprieler (SANC); 2 ex., Cape Province, Suurberg NR, 33.16S/25.45E, XI.1988, R. Oberprieler (SANC); 1 ex., Cape Province, Phantom Pass nr Knysna, 34.00S/22.59E, XII.1988, R. Oberprieler (SANC); 2 ex., Cape Province, Brenton-on-Sea, Knysna, 34.04S/23.01E, XII.1988, E. Grobbelaar (SANC); 3 ex., Transvaal, Barberton, 25.50S/31.02E, I.1988, E. Holm & E. Marais (NMNW); 1 ex., Natal, 27 km S Empangeni, 28.57S/31.43E, II.1989, B. Grobbelaar & E. v. d. Linde (SANC); 1, Gankapoordam, Cape Prov., VIII.1989, G. Minet (NHMB); 1 ex., 23 km N East London, IX.1989, W. Wittmer & S. Gussman (NHMB); 4 ex., Transkei, Port St. John, Silaka, 31.33S/29.30E, XI.-XII.1987, S. Endrödy-Younga, at uv-light (TMSA); 1 ex., Transvaal, Montrose State Forest, Barberton, 25.50S/31.02E, I.1988, E. Holm & E. Marais (NMNW); 1 ex., Transvaal, Uakhutswa River, Ofcolaco, 24.05S/30.22E, I.1989, Werner (cDö); 4 ex., Transvaal, Witpoortjie, Botanical Garden, 26.07S/27.50E, II.1989, B. Grobbelaar (SANC); 3 ex., Transvaal, Lekgalameetse NR, 24.10S/30.14E, II.1989, V. M. Uys / N. Verheijen (SANC); 6 ex., Natal, Cathkin Peak Hotel, 29.00S/29.27E, IV.1989, E. v. d. Linde (SANC); 1 ex., Natal, Overstone nr Fawn Leas Farm, 29.22S/30.36E, X.1989, E. v. d. Linde (SANC); 3 ex., Transvaal, Weltevreden Farm nr. Nelspruit, 25.34S/31.10E, II.1989, I.1990, R. Oberprieler, V. M. Uys (SANC); 2 ex., Natal, St Lucia Estuary, 28.17S/32.25E, II.1989, B. Grobbelaar & E. v. d. Linde (SANC); 1 ex., 20 km S Mkuze, 27.56S/32.13E, Natal, IX.1989, W. Wittmer & S. Gussmann (MNHB); 1 ex., Transvaal, Roodeplast dam nr Pretoria, 24.41S/28.18E, X.1989, J. S. Donaldson (SANC); 1 ex., Cape Province, Keurboomrivier Mond nr. Plettenberg Bay, 34.02S/23.24E, II.1990, M. Jonsson (SANC); 2 ex., Cape Province, Swartberg pass, 33.19S/22.03E, II.1990, M. Jonsson (SANC); 2 ex., Cape Province, Kango Mts Ressort nr Oudtshoorn, 33.31S/22.21E, II.1990, M. Jonsson (SANC); 2 ex., Beacon Bay, Cape Prov., X.1990, W. Wittmer (NHMB); 2 ex., 70 km W Grahamstown, X.1990, W. Wittmer (NHMB); 1 ex., Transkei, Lusikisiki, 31.21S/29.35E, XI.1991, Richter (MIZT); 2 ex., Pretoria, 25.45S/28.12E, XI.1992, W. Wittmer (NHMB); 1 ex., Wonderdal Farm, Graaff-Reinet, 32.15S/24.32E, 800 m, XI.1992, W. Wittmer (NHMB); 1 ex., Port Elisabeth, Addo Elephant NP, 30.50S/25.45E, XII.1992, F. Koch (ZMHB); 1 ex., Groenfontain,

SW of Naboomsprui, 24.38S/28.31E, II.1993, E. Grobbelaar (SANC); 1 ex., Dragon Peaks Park, 1150–1450 m, 29.02S/29.26E, XI.1993, J. Deckert, lux (ZMHB); 4 ex., Natal, Drakensberg, 29.03S/29.24E, IX.1993, II.1994, U. Göllner, F. Koch (ZMHB); 6 ex., Natal, Itala GR, 27.30S/31.20E, I.1994, II.1995, U. Göllner, F. Koch (ZMHB); 1 ex., Natal, Spa ca. 20 km SES Paulpietersburg, 27.32S/30.57E, II.1994, U. Göllner (ZMHB); 1 ex., Natal, Sodwana Bay NP, 27.37S/32.41E, I.-II.1994, U. Göllner (ZMHB); 1 ex., Natal, Mkunza NP, 27.36S/32.13E, II.1994, F. Koch (ZMHB); 3 ex., KwaZulu-Natal, St. Lucia Park, 28.12S/32.25E, II.1995, F. Koch (ZMHB); 1 ex., KwaZulu-Natal, N'dumu GR, 26.55S/32.19E, II.1995, F. Koch (ZMHB); 1 ex., KwaZulu-Natal, Pongola River, Makana Drift, 27.01S/32.18E, II.1995, F. Koch (ZMHB); 5 ex., Cape Prov., Citrusdal, Olifantsriver, 32.36S/19.08E, IV.1995, U. Göllner (ZMHB); 2 ex., Bontbok NP, 34.04S/20.27E, IV.1995, J. Deckert, U Göllner (ZMHB); 1 ex., KwaZulu-Natal, Sodwana Bay NP, 27.37S/32.41E, XI.1995, F. Koch (ZMHB); 1 ex., Bophutatswana, Pilansberg NP, 25.15S/27.13E, 1200–1500 m, XI.1996, M. Hartmann (NME); 3 ex., Legalameetse NR, Makhutsi Camp, 24.12S/30.18E, 1200 m, I.1997, E. Grobbelaar (SANC); 1 ex., Tshipise, Nonet NR, 22.37S/30.10E, 320 m, XI.1998, M. Hartmann (NME); 1 ex., Karoo, Graaf-reinet Camp, 32.14S/24.32E, 500 m, XI.-XII.1996, M. Hartmann (NME); 1 ex., W-Cape, Greyton, 34.03S/19.37E, X.1999, M. Snizek (MIZT). – **Uganda:** 1 ex., Tero Forest, SE Buddu, 0.50S/31.40E, IX.1911, S. A. Neave (BMNH); 1 ex., Bugiri, 0.34N/33.45E, 1400 m, VIII.1957, P. Basilewsky & N. Leleup (MRAC); 176 ex., Kibale Forest, 0.50N/31.06E, VII., IX.-X.1983, VI., IX.1984, IV.-V.1985, IX.1986, M. Nummeli (Helsinki); 2 ex., Ft. Portal, Kibale Forest, 0.45N/31.00E, V.-IX.1992, coll. Maus (ZFMK); 5 ex., Kibale Forest, Kanyaware, 1600 m, VII.-VIII.1998, L. Schmidt (ZFMK). – **Zambia:** 1 ex., Victoria Falls, 17.55S/25.51E, 3000 ft, IX.1905, B. E. Poulton (UMO); 11 ex., Victoria Falls, Palm Kloof, IX.1905, B. E. Longstaff (UMO); 1 ex., Lofu River, 8.34S/30.44E, 3500 ft, VIII.1909, S. A. Neave (UMO); 2 ex., Upper Luangwa, 14.49S/19.06E, 1880–2000 ft, III.1908, S. A. Neave (BMNH, UMO); 1 ex., Mid-Lungwa, 14.00S/19.00E, VIII.1910, S. A. Neave (BMNH); 1 ex., Niamadzi R., nr. Nawalia, VIII.1910, S. A. Neave (BMNH); 1 ex., Mwengwa, 13.00S/27.40E, VIII.1913, H. C. Dollman (BMNH). – **Zimbabwe:** 1 ex., Mashonaland, Jacoby coll. (BMNH); 2 ex., Matabele, Hård af Seg. (NHR); 2 ex., Salisbury, 17.43S/31.05E, Jacoby coll. (BMNH, SAMC); 1 ex., Umchaki River, II.1897 (BMNH); 5 ex., Salisbury, II.1895, VIII.1898, II.1899, VI.-VII.1900, G. A. K. Marshall (BMNH); 6 ex., Salisbury, I., II., V., VIII.1898 (BMNH); 2 ex., Salisbury, VIII.1898, on *Mosasa*, Jacoby coll. (BMNH, SAMC); 1 ex., Old Umtali, 19.00S/32.40E, X.1897, G. A. K. Marshall (BMNH); 3 ex., Mashonaland, Chirinda, 20.05S/31.28E, X.1905, G. A. K. Marshall (BMNH); 1 ex., Selukwe, 19.40S/30.02E, 1915, A. Ellenberger (MNHN); 1 ex., near Fort Victoria, 20.10S/30.49E, IX.1931, J. Ogilvie (BMNH); 2 ex., Umtali, 19.00S/32.40E, Xmas Pass, V.1932, J. Ogilvie (BMNH); 1 ex., Imbezi Valley, III.1957, N. L. H. Krauss (BMNH); 1 ex., Melsetter, 19.48S/32.52E, 1700 m, VII.1960, N. Leleup (MRAC); 1 ex., Mpika, Muchinga Mts., 11.15S/31.27E, 1700 m, VII.1960, N. Leleup (MRAC); 1 ex., Khami ruins, Bulawayo, 20.15S/28.30E, 1350 m, XI.1987, W. Wittmer (NHMB); 1 ex., Kyle RP, Lake Mutirikwi, 20.13S/31.00E, XII.1993, F. Koch (ZMHB); 1 ex., Chimanimani, 19.47S/32.50E, XII.1998, S. Bečvář (CBz); 1 ex., 15 km SE of Muzarabani, 16.20S/31.10E, XII.1998, S. Bečvář (CBz).

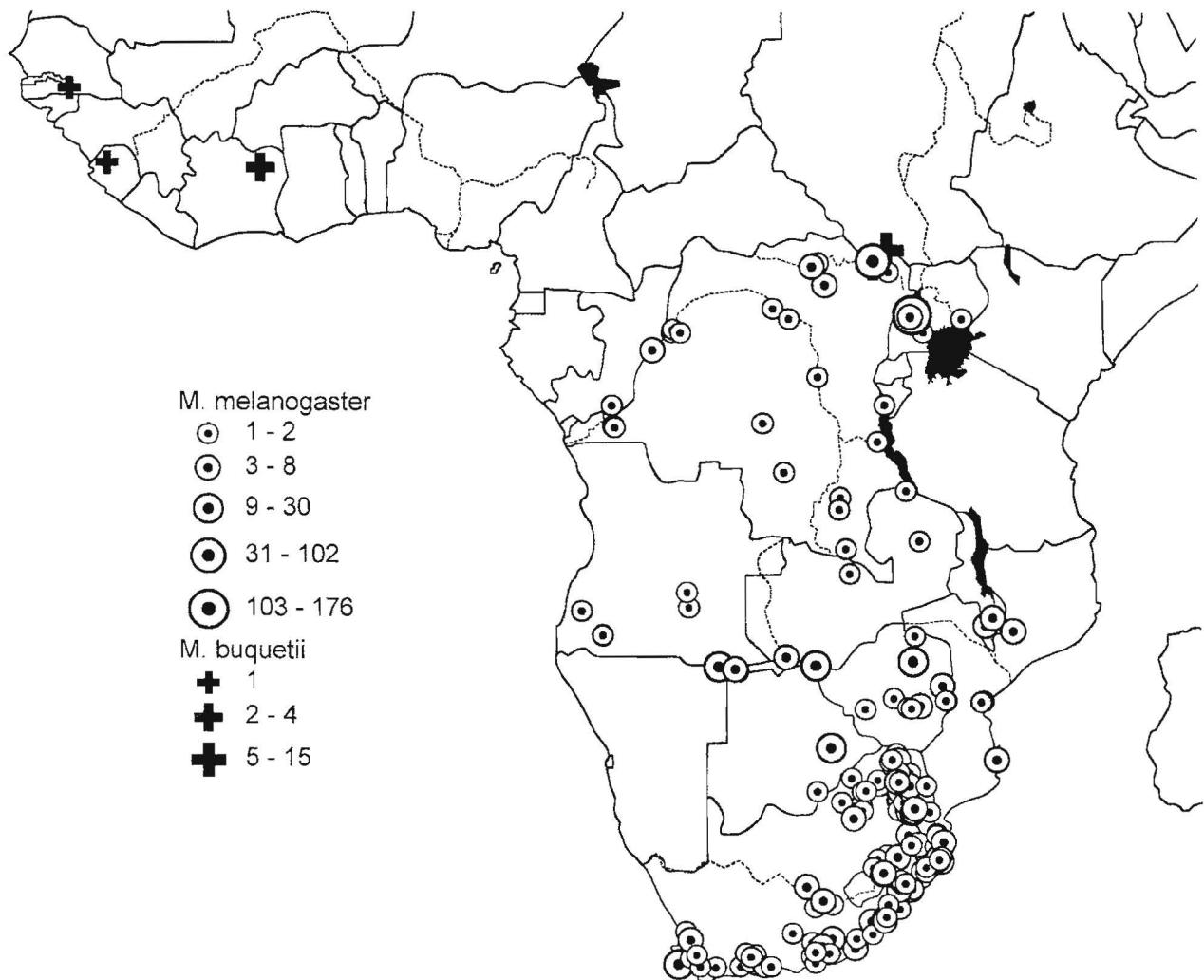


Fig. 6: Distribution of *Monolepta melanogaster* (Wiedemann, 1823), and *M. buquetii* Chevrolat, 1837

Monolepta buquetii Chevrolat, 1837

Description.

Total length 3.00–4.20 mm (mean: 3.58 mm; n = 8).

Head. Including mouth parts yellowish-red, in some specimens labrum and frons yellow, vertex yellowish-red, vertex very broad (Fig. 7). Antennae pale yellow throughout, rarely tip of last antennomere dark brown, antennomeres four to eleven short, less than 4 times long than broad at apex, third antennomere very short in males (Fig. 8a), more elongated in females (Fig. 8b). Length of antennomeres two to three 1.00–1.40 (mean: 1.17), length of antennomeres three to four 0.20–0.36 (mean: 0.30).

Thorax. Prothorax entirely pale yellow. Pronotal width 0.95–1.20 mm (mean: 1.11 mm), pronotal length to width 0.54–0.58 (mean: 0.57), pronotum very finely punctured. Elytra pale yellow with narrow transverse black band at base, and each elytron with transverse

black spot in the apical third, often much smaller than in Fig. 7a. Rarely elytra with broad black basal and outer margins reaching towards the apical third and sometimes joining with the subapical spot (Fig. 7b). Elytral length 2.55–3.15 mm (mean: 2.68 mm), maximal width of both elytra 1.60–2.10 mm (mean: 1.92 mm), maximal width of both elytra to length of elytron 0.69–0.73 (mean: 0.72). Scutellum yellow. Meso- and metathorax reddish-yellow, legs completely pale yellow.

Abdomen. Yellow to reddish-yellow.

Female genitalia. Spermatheca with spherical nodulus, comparatively broad middle part and short, slender cornu (Fig. 9). Dorsal part of bursa sclerites with narrowed, hook-like base (Fig. 10a), ventral part slender, outer margin very finely serrate (Fig. 10b).

Male genitalia. Median lobe very slender in the apical half (Fig. 11), apex usually rounded (Figs 11b, d), rarely pointed (Fig. 11c). Tectum and ventral groove of me-

dian lobe narrow (Figs b, c). One pair of median endophallic spiculae strong, significantly bent at apex, ventral spiculae slender, apically hooked, lateral spiculae very small, triangular (Fig. 11b).

Distribution. Known from savannas of West and northern Central Africa (Fig. 6).

Diagnosis. *Monolepta buquetii* is one of the smallest *Monolepta* species known from Africa. Size and coloration is most similar to *M. vincta* and *M. sharonae* sp. n. Males can be easily distinguished by the very short third antennomere (Fig. 8a). Generally, short antenna, broad head and the transverse pronotum are good external, and shape of median lobe and spermatheca are excellent genital diagnostic characters of *M. buquetii*.

Type material. Holotype: ♂ “E. Coll. Laferté / *Monolepta Buquetii* Dj. Senegal / Holotype” (BMNH); type locality: Senegal. CHEVROLAT (1837: 407) listed this species in the third edition of the Dejean catalogue. It was not described, but the name is available by indication (article 12.2, ICZN rules).

Further material examined. **Congo:** P. N. Garamba, 3.40N/29.00: 4 ex., I/a/1, I/b/3, I/c/1, I.-II.1950, H. de Saeger (2 ex. IRSNB, 2 ex. MRAC); 5 ex., I/a/1, I/b/1, II., IX.1950, G. Demoulin (IRSNB); 1 ex., II/fc/18, XI.1951, H. de Saeger (IRSNB); 1 ex., II/gd/4, III.1952, H. de Saeger (IRSNB); 2 ex., PFSK.25/3, VI.1952, H. de Saeger (IRSNB); 12 ex., P. N. Garamba, Ndelele, 4.22N/29.47E, II.-III., VII.1952, H. de Saeger (8 ex. IRSNB, 4 ex. MRAC); 2 ex., 2/source, VI.1952, H. de Saeger (IRSNB). – **Ivory Coast:** 4 ex., Comoé NP, 8.75N/3.80W, VI.-VII.1997, C. Mody (ZFMK). – **Senegal:** 1 ex., Guede, II.1946 (BMNH).

Monolepta lepida Reiche, 1858

Redescription.

Total length 3.80–5.30 mm (mean: 4.68 mm; n = 10).

Head. Pale yellowish-red (Fig. 12a), frons sometimes yellow (Fig. 12b). Antennae pale yellow, tip of terminal antennomere black, antennomeres four to eleven about 4 times longer than broad at apex. Basal antennomeres elongated, third antennomere significantly longer than second particularly in males (Fig. 13a), length of antennomeres two to three 0.75–0.88 (mean: 0.84), length of antennomeres three to four 0.46–0.54 (mean: 0.49).

Thorax. Prothorax pale yellow to yellowish-red (Fig. 12). Pronotum narrow, width 1.10–1.55 mm (mean: 1.33 mm), pronotal length to width 0.63–0.67 (mean: 0.66), very finely punctured. Elytra pale yellow, base with narrow transverse black band (Fig. 12a), rarely black coloration reduced to spots at humeri (Fig. 12b), subapical transverse elytral band narrow. Some specimens from Oman have a yellowish-red head, pronotum and elytra with larger, more circular subapical elytral spots. Elytral length 2.80–3.80 mm (mean: 3.41 mm), maximal width of both elytra 2.00–2.70 mm (mean: 2.34 mm), maximal width of both elytra to length of

elytron 0.65–0.70 (mean: 0.68). Scutellum yellow to yellowish-red. Meso-, metathorax, and legs usually yellow, rarely yellowish-red, but tibia and tarsus always pale yellow.

Abdomen. Pale yellow to yellow.

Female genitalia. Spermatheca with spherical nodulus, comparatively broad middle part and cornu (Fig. 14). Dorsal part of bursa sclerites slender, with row of hooks at base (Fig. 15a), ventral part very slender, outer margin very finely serrate (Fig. 15b).

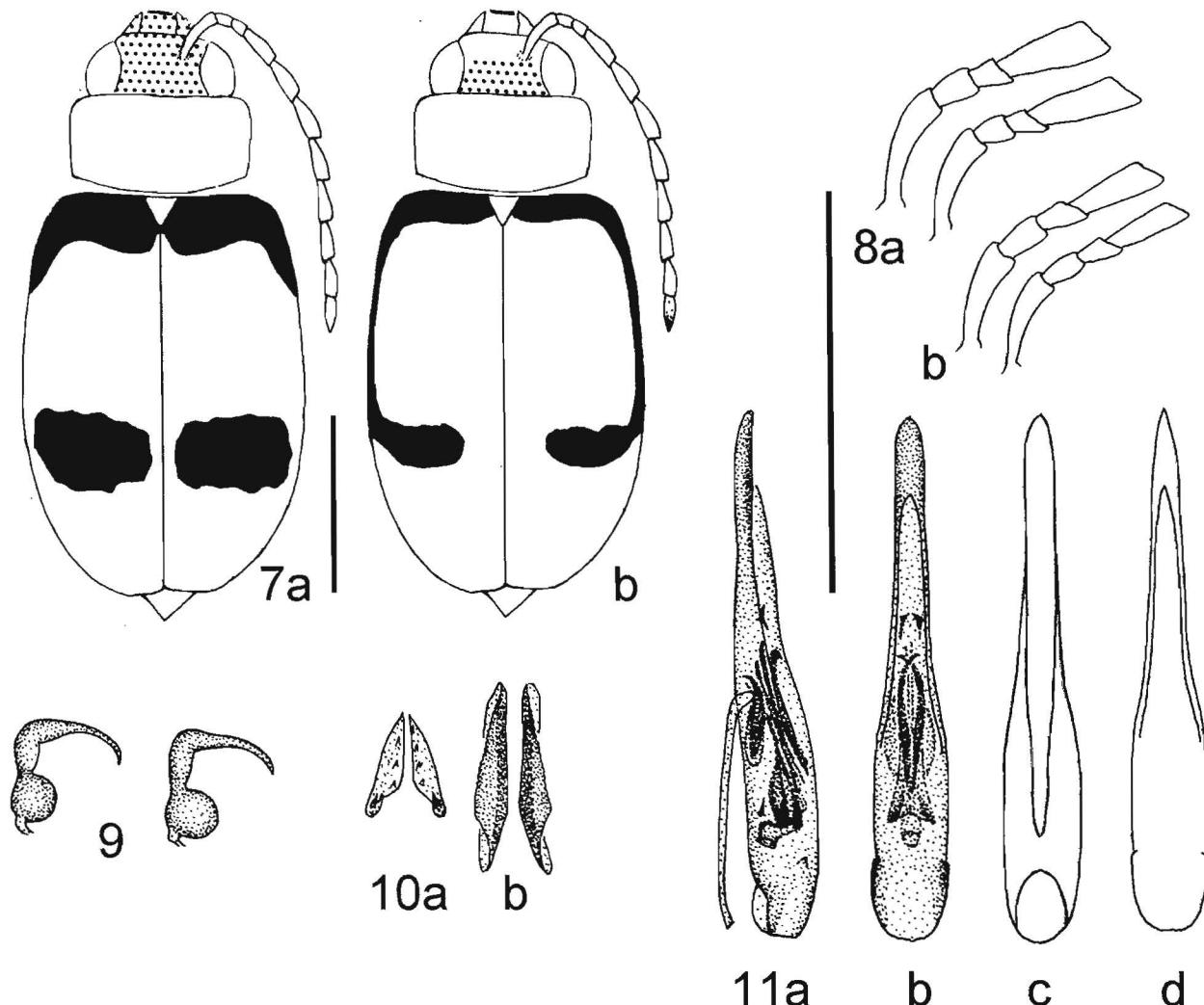
Male genitalia. Median lobe conical, straight, apical part spoon-like widened (Fig. 16a), ventrally bent (Fig. 16b). Tectum slender, pointed, ventral groove parallel-sided, very slender (Fig. 16c). Dorsal pair of median endophallic spiculae stronger, very long, other median spiculae slender, long, ventral spiculae separated in two portions, hooked at apex, lateral spiculae slender, long, bifurcate (Figs 16a, b).

Distribution. Most specimens are known from the Arabian Peninsula and this species reaches the Palaearctic Region in Israel and Jordan. A few specimens are known from Eritrea and Somalia (Fig. 17), and occurs most likely also in Egypt and eastern Sudan.

Diagnosis. Most similar to *M. vincta* and both species occur sympatrically in north-east Africa. Including *M. melanogaster*, these three species are most likely a monophyletic group, which can be derived from external characters, coloration, and male genital patterns, particularly the type of the endophallic armature. In comparison to *M. vincta*, *M. lepida* is on average larger, and has reduced black elytral coloration, while syntopic *M. vincta* often has broad transverse black elytral bands. Good diagnostic external characters are the elongated second and third antennomeres in *M. lepida* (length of second to third antennomeres: 0.75–0.88, *M. vincta*: 0.86–1.00; length of third to fourth antennomeres: 0.46–0.54, *M. vincta*: 0.27–0.35) and the narrow pronotum (pronotal length to width: 0.63–0.67, *M. vincta*: 0.57–0.64).

Type material. Holotype: ♀ “Vog. de Saulcy, Jerusalem / *Monolepta lepida* Reiche 1858 / Muséum Paris 1952 coll. R. Oberthür / Holotype” (MNHN); type locality: Israel, Jerusalem, “des bords du Jourdain” which is about 30 km east of the centre of Jerusalem. REICHE (1858) gave a detailed description of external characters and coloration including an excellent figure (pl. 1, fig. 10). His description based most likely on a single specimen “M. Azambre, à qui dois un bel individu de cette espèce, ...” which is considered as holotype. The original description was repeated in JOANNIS (1866).

Further material examined. **Eritrea:** 2 ex., Agorgat, 15.33N/37.53E, I.1906, D. Figni (MCSN); 23 ex., Assab, 13.00N/42.44E, 1907, Katona (HNHM). – **Israel:** 2 ex., Wadi Arugod, Ein Gedi,



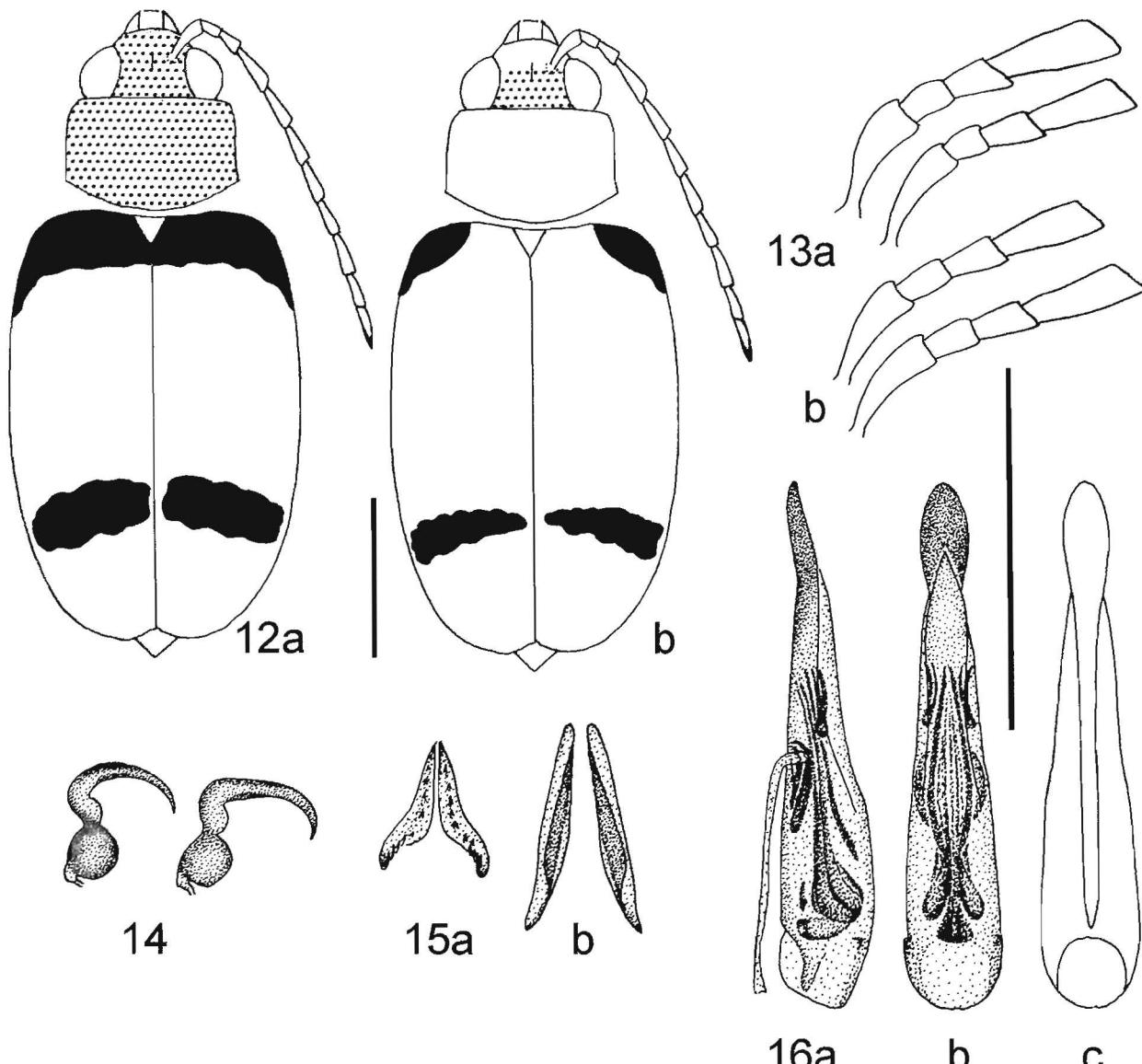
Figs 7–11: *Monolepta buquetii* Chevrolat, 1837 7: colour pattern; 8: basal antennal articles (a: ♂, b: ♀); 9: two different spermathecae; 10: bursa-sclerites (a: dorsal, b: ventral); 11: median lobe (a: lateral, b: dorsal, c: dorsal, variation with pointed apex, d: ventral, without endophallic structures).

31.27N/35.23E, III.1963, W. Wittmer (CMe). – **Jordan:** 1 ex., Wadi Schaib, 30.30N/36.00E, 100 m, XI.1959, J. Klapperich (NHMB). – **Oman:** 7 ex., Dhofar, 17.00N/54.10E, X.1979, T. B. Larsen (NHMB); 1 ex., Dhofar, Ain Rzat, Salalah, 17.01N/54.06E, II.1989, W. Wittmer (NHMB); 2 ex., 30 km W Salalah, Wadis nr. Al Mughsayi, 17.00N/53.50E, II.1998, G. Wewalka (NHMB). – **Saudi Arabia:** 1 ex., Jebel Ibrahim, 20.25N/41.11E, 1540 m, VII.year?, W. Büttiker (NHMB); 3 ex., Shileam, XI.1935, R. C. M. Darling (BMNH); 2 ex., Wadi Johan, Abha, 18.12N/42.30E, 2150 m, IV.1976, Wittmer & Büttiker (NHMB); 1 ex., Wadi ad Dilla, 1120 m, X.1979, W. Büttiker (NHMB); 1 ex., Al Alayyah, 19.36N/41.58E, 1950 m, X.1979, W. Büttiker (NHMB); 6 ex., Thanomah, 1950 m, IV.1980, W. Büttiker (1 CMe, 5 NHMB); 1 ex., Riyadh, 24.40N/46.43E, V.1980, W. Büttiker (NHMB); 2 ex., An Nimas, 19.07N/42.08E, VII.1981 (CMe); 1 ex., Jizan, 16.57N/42.33E, III.1984, A. S. Talhouk (NHMB); 1 ex., Bani Rizam, 18.20N/42.28E, 2230 m, IX.1984, W. Büttiker (CMe); 1 ex., Harithi, 21.18N/40.18E, IV.1985, W. Büttiker (NHMB). – **Somalia:** 1 ex., Br. Somaliland, 10.00N/48.00E, B.M. 1929-398, W. A. Macfadyen (BMNH); 1 ex., Burao, Br. Somaliland, 9.00N/46.00E, VII.1942, J. R. Audy

(BMNH); 3 ex., Run, Garee, VIII.1964, Miss. Biol. (NHMB); 5 ex., Run, 8.47N/48.56E, VII.1969 (NHMB); 1 ex., Taleh, 9.09N/48.26E, IV.1980 (NHMB). – **Yemen:** 2 ex., Jebel Jihaf, Wadi Leje, 13.45N/44.42E, 6300–6700 ft, X.1937, Scott & Britton (BMNH); 1 ex., Wadi Natid, Kirsh, 13.22N/44.32E, 2300 ft, XII.1937, Scott & Britton (BMNH).

Monolepta vincata Gerstaecker, 1871: 83

- = *Monolepta alternata* Chapuis, 1879: 23; **syn. n.**
- = *Monolepta insignis* Weise 1903: 212; **syn. n.**
- = *Monolepta sjöstedti* Weise, 1909: 212; **syn. n.**
- = *Monolepta ugandaensis* Laboissière, 1920a: 52; **syn. n.**
- = *Monolepta lusingensis* Laboissière, 1920b: 98; **syn. n.**
- = *Monolepta bouvieri* Laboissière, 1920b: 98; **syn. n.**
- = *Monolepta striola* Laboissière, 1920b: 98–99; **syn. n.**



Figs 12–16: *Monolepta lepida* Reiche, 1858 12: colour pattern; 13: basal antennal articles (a: ♂, b: ♀); 14: two different spermathecae; 15: bursa-sclerites (a: dorsal, b: ventral); 16: median lobe (a: lateral, b: dorsal, c: ventral, without endophallic structures).

= *Monolepta consociata* Laboissière, 1920b: 99; **syn. n.**

= *Monolepta rugifrons* Laboissière, 1920b: 99; **syn. n.**

= *Monolepta femoralis* Laboissière 1940b: 66; **syn. n.**

Redescription.

Total length 3.25–4.75 mm (mean: 4.06 mm; n = 25).

Head. An entirely yellowish red to red head is typical for specimens from lowland areas of eastern and western Africa (Figs 18b, g), in montane regions of East Africa and along the Albertine Rift head often with yellow frons and black vertex (Figs 18a, d, e), frons can be also brownish (Fig. 18f) or head black throughout as in some type specimens of *M. bouvieri* and *M. sjöstedti* from Mt.

Kilimandjaro, of *M. femoralis* from the Ruwenzori Mountains, and in most specimens from the Ethiopian Highlands including the type of *M. alternata* (Fig. 18c). Antennae pale yellow, only last antennomere or at most apical parts of the tenth antennomere brownish or black, antennomeres four to eleven about 4 times longer than broad at apex. Basal antennomeres comparatively short (Fig. 19), length of antennomeres two to three 0.86–1.00 (mean: 0.95), length of antennomeres three to four 0.28–0.37 (mean: 0.32).

Thorax. Prothorax pale yellow in about 60 % of specimens examined (Figs 18 a-d), others with yellowish-red to red prothorax (Figs 18e, g), very rarely prosternum black as in some types of *M. alternata* or prothorax

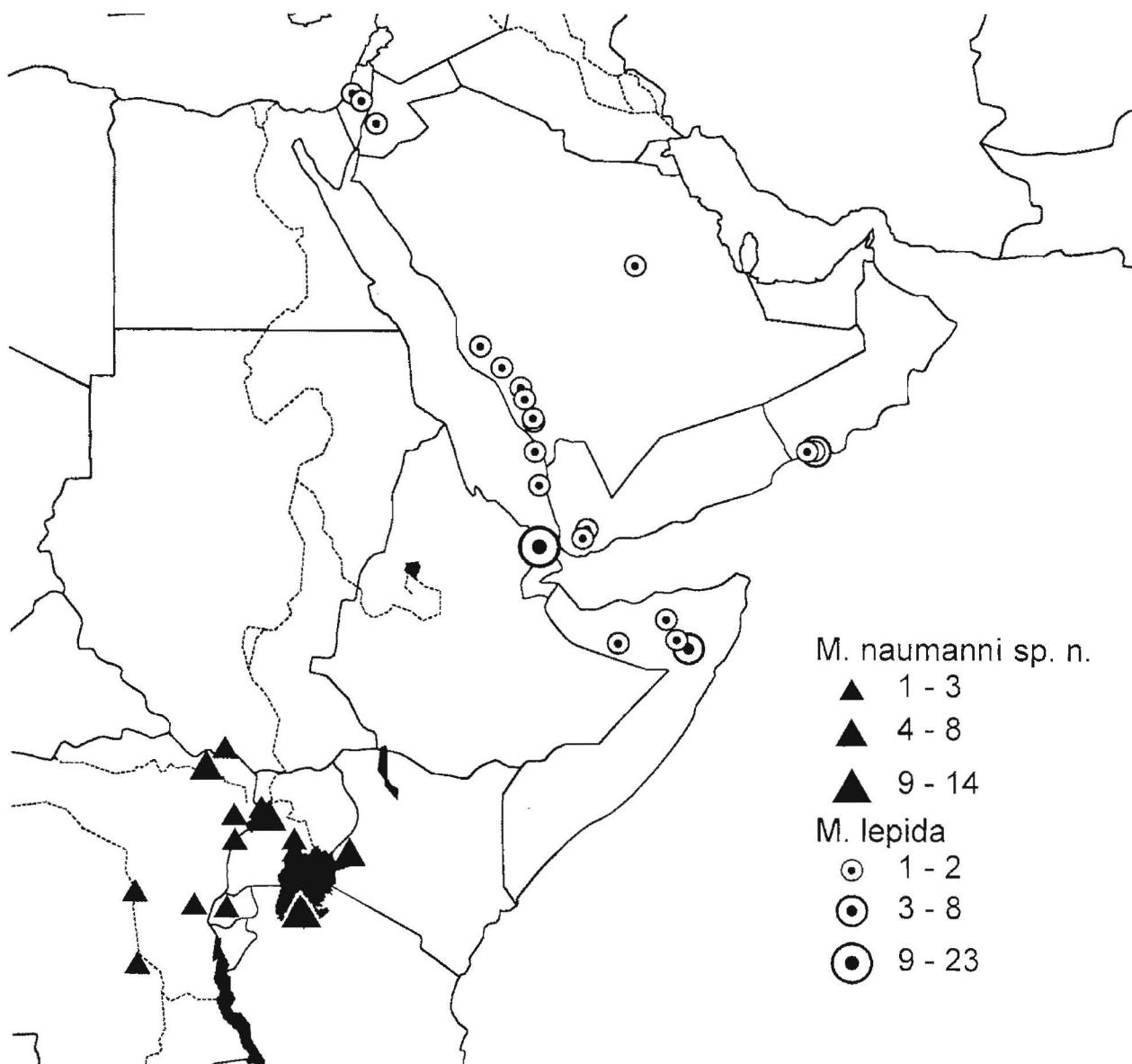
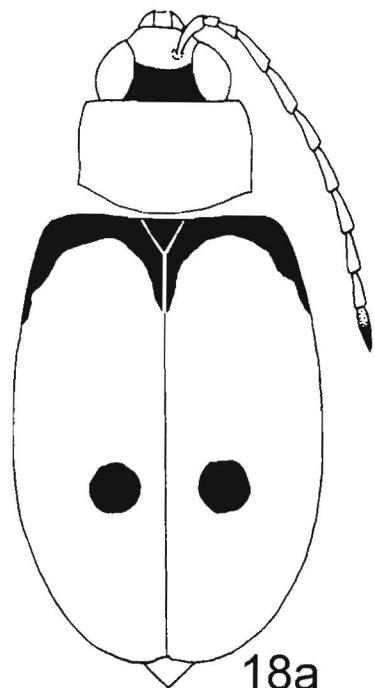


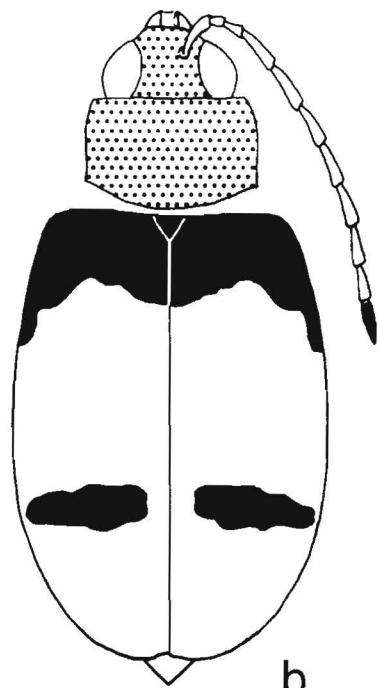
Fig. 17: Distribution of *Monolepta lepida* Reiche, 1858, and *M. naumannii* sp. n.

black throughout (Fig. 18f) as in some specimens from Uganda and Rwanda. Pronotal width 0.95–1.35 mm (mean: 1.17 mm), pronotum broad, pronotal length to width 0.58–0.64 (mean: 0.61), very finely punctured. Elytra pale yellow, to yellow, extension of black parts highly variable. Mostly reduced in specimens from montane regions of East and Central Africa, with narrow black elytral base (Fig. 18a), which is sometimes significantly extended along the outer elytral margins and the suture (Fig. 18d), subapical elytral band can be reduced to circular spots (types of *M. sjöstedti*; Fig. 18a), or subapical black spots can be extended towards the outer elytral margins (types of *M. insignis* and *M. lusingerensis*; Fig. 18d). Most specimens from mid altitude areas and lowland sites in West, Central and East

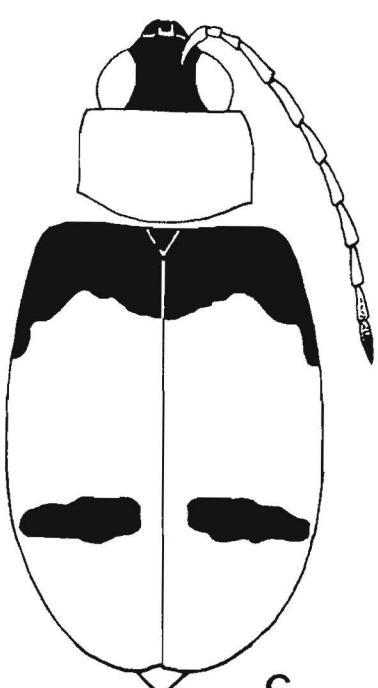
Africa with more extended basal band (type of *M. vincita*; Fig. 18b, or types of *M. consociata*, *M. rugifrons* and *M. striola*; Fig. 18e). The black coloration is most extended in some specimens from the Ethiopian Highlands, and in few specimens from the Congo Basin and western Africa (Fig. 18g). Elytral length 2.50–3.60 mm (mean: 3.09 mm), maximal width of both elytra 1.70–2.35 mm (mean: 2.12 mm), maximal width of both elytra to length of elytron 0.68–0.75 (mean: 0.72). Scutellum yellow, yellowish-red or black. Meso- and metathorax, and legs usually yellowish-red, with exception of the pale yellow tibiae and tarsi. Specimens with black head from montane regions sometimes with brownish or rarely black meso- and metathorax and basal two thirds of femora can be also black, rarely un-



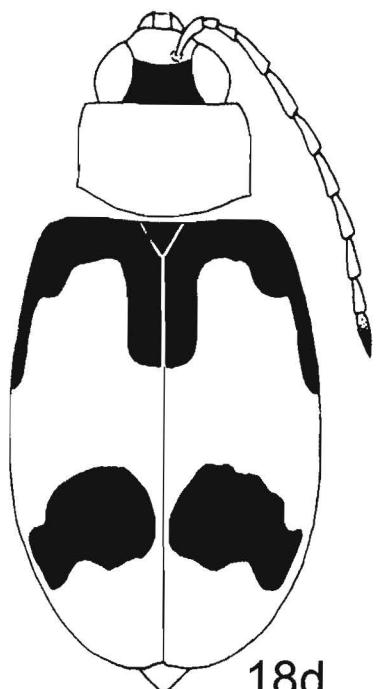
18a



b

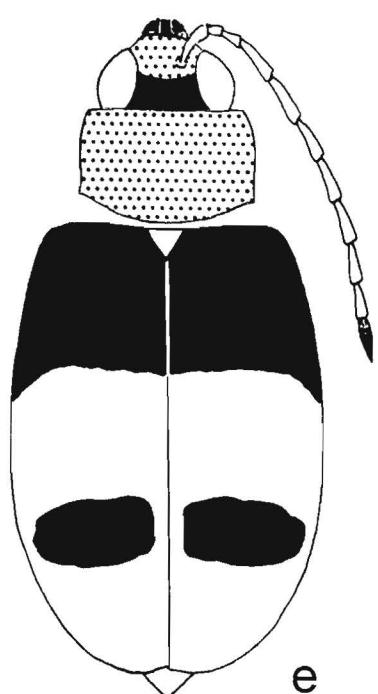


c

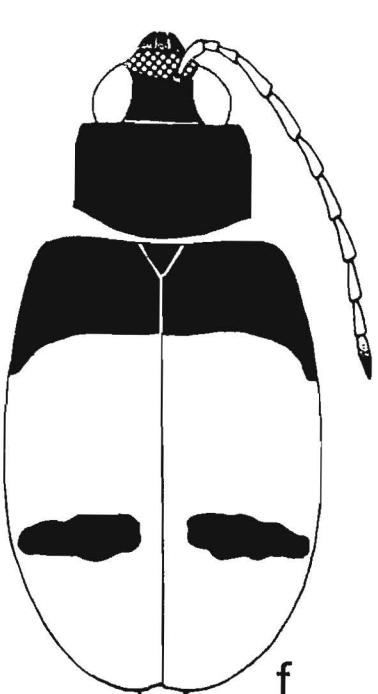


18d

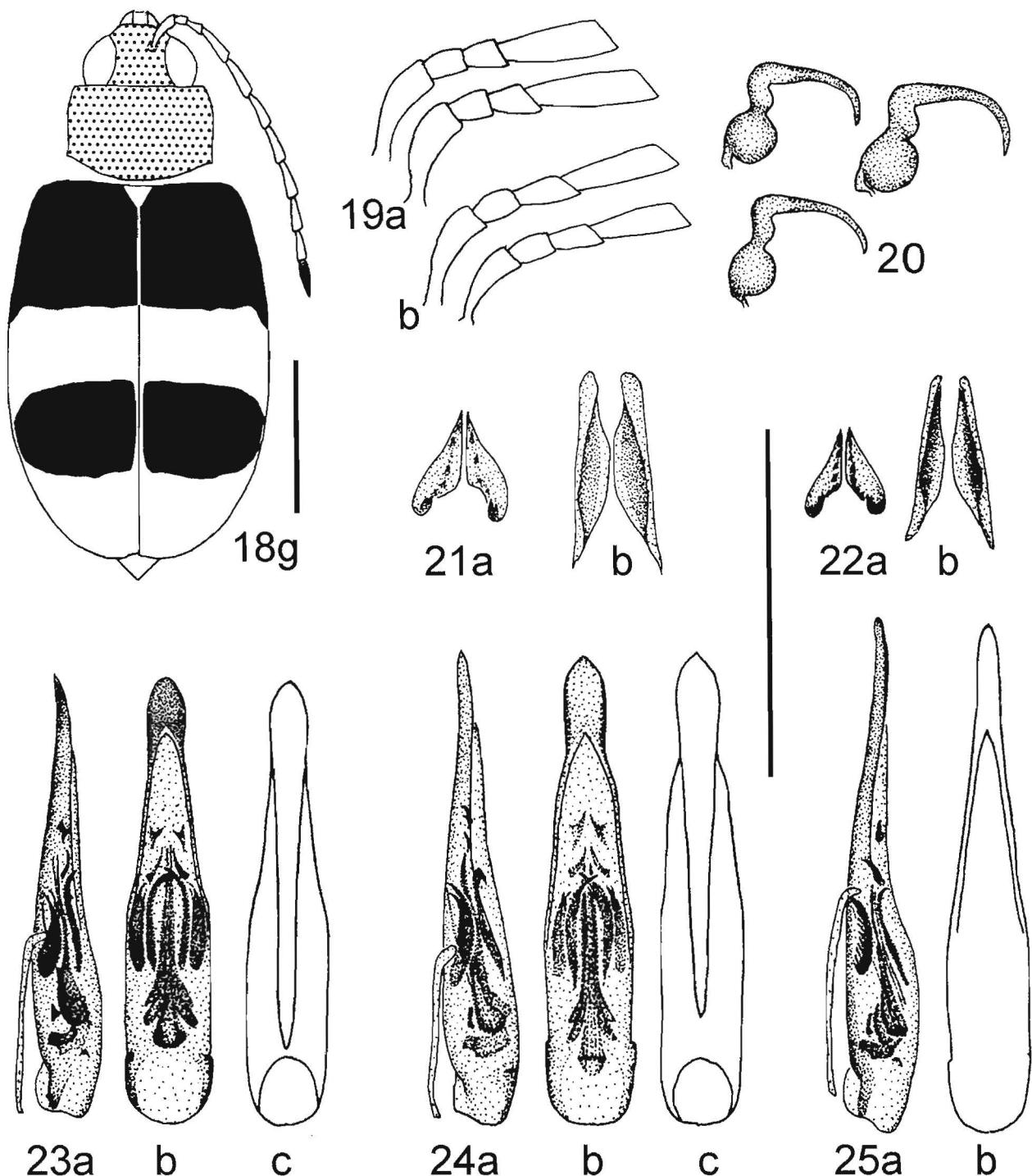
|



e



f



Figs 18–25: *Monolepta vincita* Gerstaecker, 1871 18: colour pattern; examples based mainly on coloration of type specimens: a: *M. sjostedti*; b: *M. vincita*; c: *M. alternata*, *M. bouvieri*, *M. femoralis*; d: *M. insignis*, *M. lusingerensis*; e: *M. rugifrons*, *M. striola*, *M. consociata*; f: rare type with black pronotum from Rwanda, Uganda; g: one coloration type from Ethiopian Highlands; 19: basal antennal articles (a: ♂, b: ♀); 20: three different spermathecae; 21: bursa-sclerites (a: dorsal, b: ventral); 22: bursa-sclerites, variation (a: dorsal, b: ventral); 23: median lobe, typical shape from Central and southern-east Africa (a: lateral, b: dorsal, c: dorsal without endophallic structures); 24: median lobe, variation, mainly Ethiopian Highlands (a: lateral, b: dorsal, c: ventral, without endophallic structures); 25: median lobe, very rare variation (a: lateral, b: dorsal, c: ventral, without endophallic structures).

derside reddish and only femora with exception of the apex black like in some types of *M. insignis*.

Abdomen. Pale yellow to yellow, in some specimens from montane regions with dark underside abdomen entirely or last sternites black.

Female genitalia. Spermatheca with spherical nodulus, slender middle part and long, slender cornu (Fig. 20). Dorsal part of bursa sclerites triangular, with strongly hooked base (Figs 21a, 22a), ventral part slender, outer margin finely serrate (Figs 21b, 22b).

Male genitalia. Median lobe conical, straight, apical part nearly parallel-sided, slightly ventrally bent (Figs 23a, 24a), few specimens from the Congo Basin with very slender apical part of median lobe (Fig. 25), some specimens from the Ethiopian Highlands have broader median lobes (Figs 24b, c). Tectum, pointed, ventral groove slender, slightly conical towards orifice (Figs 23b, c, 24b, c). Dorsal pair of median endophallic spiculae strong, curved or hooked at apex (Figs 23a, 24a, 25a), other median spiculae slender, long; ventral spiculae separated into two portions; two pairs of short lateral spiculae, the more basal pair slender, the more apical one triangular (Figs 23b, 24b).

Distribution. This species is widely distributed and abundant in most parts of tropical Africa, but with increasing rarity in southern Africa towards the South, and not known from the Republic of South Africa (Fig. 26).

Diagnosis. *Monolepta vincta* is most similar and very closely related to *M. melanogaster* and *M. lepida*. The latter two species are on average larger, and thus specimens smaller than 3.8 mm total length belong to *M. vincta*. However, there is a high overlap in body size. *Monolepta lepida*, which is sympatric with *M. vincta* in Somalia and Eritrea, can be distinguished by the elongated second and third antennomeres (length of second to third antennomeres: 0.75–0.88, *M. vincta*: 0.86–1.00; length of third to fourth antennomeres: 0.46–0.54, *M. vincta*: 0.27–0.35) and the narrow pronotum (pronotal length to width: 0.63–0.67, *M. vincta*: 0.57–0.64). *Monolepta melanogaster* is allopatric with *M. vincta* in South Africa and Namibia, while both species are sympatric in Malawi, Congo, and most regions of Zimbabwe, southern Zambia, southern Moçambique and Uganda. *Monolepta vincta* can be distinguished on average by more slender elytra, shorter antennae, and by slight differences in shape of the median lobe and endophallic armature (for details see diagnosis for *M. melanogaster*). *Monolepta vincta*, *M. melanogaster*, and *M. lepida* are most likely a monophyletic group, which can be derived from external characters, coloration and male genitalic patterns. Identification of *M. lepida* and especially of *M. melanogaster* from areas where these

species occur sympatrically with *M. vincta* should be confirmed by examination of the male genitalia, while females can sometimes not be allocated to species without doubt.

Other species similar to *M. vincta* are the herein described *M. sharonae* sp. n., which has the same colour pattern as the type of *M. vincta* (Fig. 18e). Both species can be clearly distinguished by examination of the male genitalia only, which are in particular different in endophallic armature (Figs 23, 24, 37). *Monolepta sharonae* sp. n. is on average smaller (total length up to 4.2 mm, *M. vincta* up to 4.7 mm), the basal antennomeres are longer (antennomere 3 to 4: 0.43–0.50, *M. vincta*: 0.28–0.37), and the transverse post antennal suture is deeply incised in all known specimens of *M. sharonae* sp. n., while this character is very rarely found in *M. vincta*. Less similar are *M. buquetii* which is also coloured like the type of *M. vincta* (Fig. 18e), but is on average smaller, has shorter antennae, and very different female and male genital characters (Figs 8, 9, 11). *Monolepta ronbeeneni* sp. n. is also much smaller than *M. vincta*, has longer antennae and more slender basal antennomeres, a more yellowish-red elytral coloration and differs also strongly in genital patterns (Fig. 31).

Discussion. Wide distribution, high abundance and high polymorphism in coloration have resulted in a high number of synonyms. After this species was first described from the coastal region in Kenya, specimens with aberrative coloration, in particular from Mt. Kilimanjaro, Mt. Kenya and the Albertine Rift, were used for the description of additional species, which have turned out as synonyms. Apart from coloration, also male genital characters show some variation. Shape of the median lobe, endophallic armature, and coloration pattern varies independently and cannot be correlated to geographic distribution of single populations. It is very likely that some populations, for example some of the Ethiopian Highlands, are genetically more isolated and undergo a current speciation process. However, using morphological data only, these populations cannot be clearly distinguished from others. Molecular data might be helpful for species identity and evolutionary processes of these beetles in the future. On the base of the available morphological data, all type specimens listed are considered as conspecific with *M. vincta*.

Type material. *Monolepta vincta* Gerstaecker, 1871. Holotype: ♀ “56683 / Type / *vincta*, Gerst.*, Mombas, v. d. Deck.” (ZMHB); examined (coloration like Fig. 18b); type locality: Kenya, Mombasa, 4.04S/39.40E. GERSTAECKER gave no information on the number of specimens studied, and mentioned only one locality. There is only one specimen available from this site, which is considered as holotype.

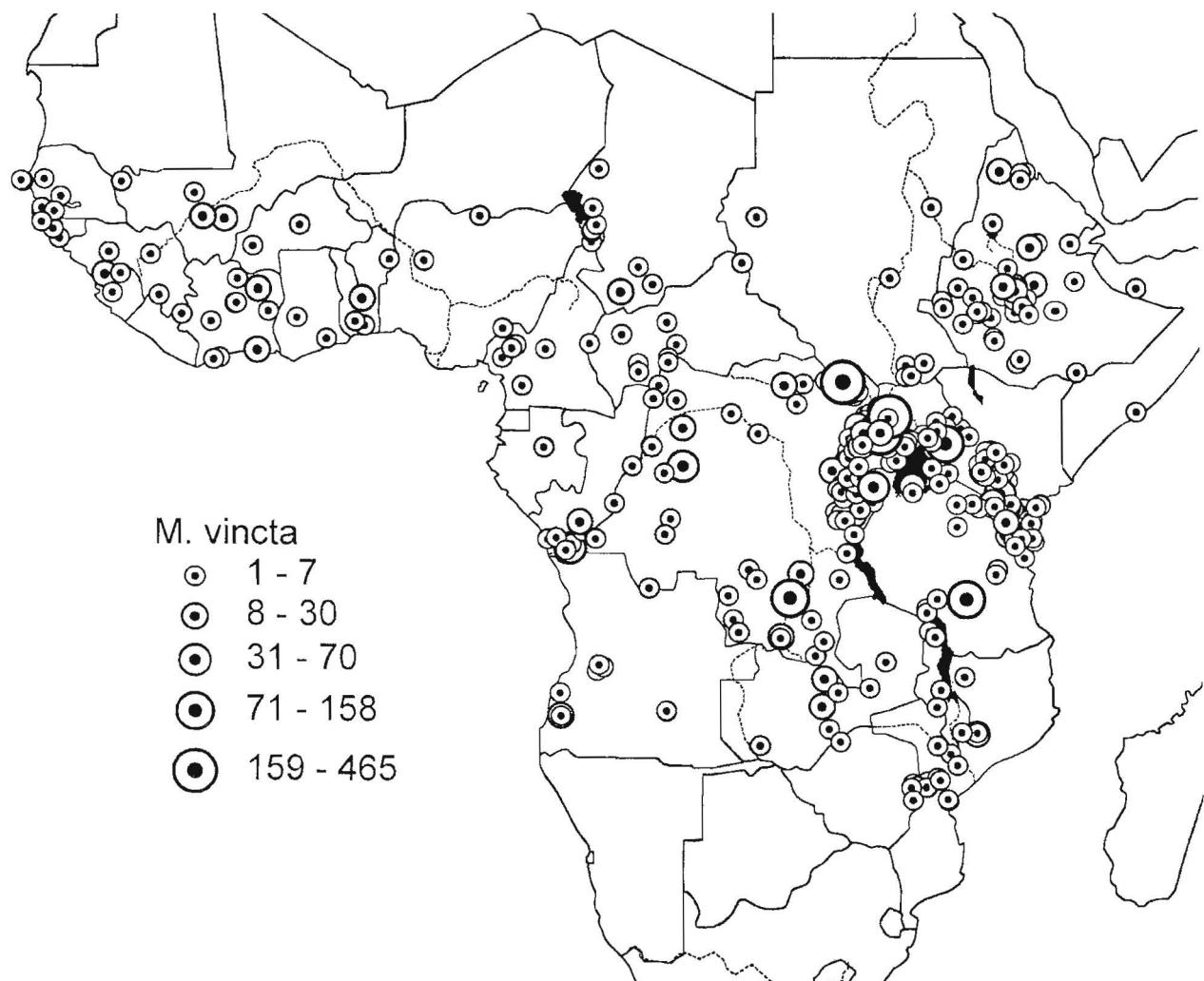


Fig. 26: Distribution of *Monolepta vincita* Gerstaecker, 1871

Monolepta alternata Chapuis, 1879. Holotype: ♀ “Abyss. Raffray / 519 / *Monolepta alternata* Chp. / Reione boschiva da Goundet ad Adoua, 1000–2000 m 1893 / Typus *Monolepta alternata* Chapuis, 1879 / Museo Civico di Genova / Holotypus *Monolepta alternata* Chapuis, 1879 / *Monolepta vincita* Gerstaecker, 1871 Th. Wagner det. 2000” (MCSN); examined (coloration like Fig. 18c); type locality: Ethiopia, province Goundet à Adoua. CHAPUIS gave no information on the number of specimens studied, and mentioned only one locality. There is only one specimen available from this site among the material in Chapuis’ collection. This specimen is considered as holotype.

Monolepta insignis Weise 1903. Lectotype: ♂ “Mombo 7.99 / ex. coll. J. Weise / Type / *Monolepta insignis* m. / Lectotypus *Monolepta insignis* Weise, 1903 Th. Wagner desig. 2003 / *Monolepta vincita* Gerstaecker, 1871 Th. Wagner det. 2003” (ZMHB); this designation; examined

(coloration like Figs 18a, d); type locality: Tanzania, Mombo, 4.54S/38.18E. – Paralectotypes: 12 ex. “Mombo” or “Mombo 7.99 / ex. coll. J. Weise”, 6 ex. additionally “Type”, 1 ex. additionally “*Monolepta insignis* m.” (ZMHB); 2 ex. same data (NHRS).

Monolepta sjöstedti Weise, 1909. Lectotype: ♂ “Kilimandj. Sjöstedt / Kibonoto, Kulturz[one] / Type / Typus / 18. Dec. / sjöstedti m / Lectotypus *Monolepta sjöstedti* Weise, 1909 Th. Wagner desig. 2003 / *Monolepta vincita* Gerstaecker, 1871 Th. Wagner det. 2003” (NHRS); this designation; examined (coloration like Figs 18a, b, d); type locality: Tanzania, Mt. Kilimandjaro, 3.04S/37.22E. – Paralectotypes: 1 ex. “Meru Regenwald / Meru Sjöstedt” (NHRS); 6 ex. “Kilimandjaro Sjöstedt” including 4 ex. additionally “Kibonoto, Kulturz[one]” including 1 ex. “Type”, 2 ex. additionally “Kibonoto Nieder[ung]” (NHRS), the paralectotypes bear additional labels indicating day and month of col-

lection. WEISE mentioned eight specimens from three locations in his original publication, which could be all located in NHRS.

Monolepta ugandaensis Laboissière, 1920a. Holotype: ♂ "Museum Paris Ouganda Ounyoro Méridental Ch. Alluaud 1909 / Janvier / *Monolepta ougandensis* [sic!] m. V. Laboissière – Dét. 1919 / Holotypus / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2003" (MNHN), examined (coloration type as Fig. 18g). LABOISSIÈRE cited only data of one specimen "Muséum de Paris", holotype by monotypy after article 73.1.2, ICZN rules.

Monolepta lusingensis Laboissière, 1920b. Lectotype: ♂ "Oct. / Museum Paris, Afrique Orient. Angl., Ile de Lusinga, Victoria-Nyanza, N.-E. Ch. Alluaud 1904 / Type / *Monolepta lusingensis* m. V. Laboissière – Det. / Lectotypus *Monolepta lusingensis* Laboissière, 1920 Th. Wagner desig. 2003 / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2003" (MNHN); this designation; type locality: Lusinga Island, location? – Paralectotypes: 1 ♀ same data as lectotype (MNHN); 1 ♀ "Muséum Paris, Afrique Orient. Angl., Ile de Lusinga, Victoria-Nyanza, N. E., Ch. Alluaud 1904 / Oct. / Type / *Monolepta lusinga*[sic!] *lensis*" (ZMUH); examined (coloration type as Fig. 18d). LABOISSIÈRE mentioned at least two specimens "Muséum Paris et coll. Laboissière" from one locality in his original publication.

Monolepta bouvieri Laboissière, 1920b. Holotype: ♀ "Museum Paris, Afrique Orient. All., Kilimandjaro, Zone des Forêts, Kiboscho, 1700 m, Ch. Alluaud 1904 / mars / Type / *Monolepta bouvieri* Laboi. V. Laboissière – Det. / Holotypus / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2000" (MNHN); examined (coloration similar to Fig. 18d); type locality: Tanzania, Mt. Kilimandjaro, 3.04S/37.22E. LABOISSIÈRE mentioned "un individu, Muséum de Paris", holotype by monotypy after article 73.1.2, ICZN rules.

Monolepta striola Laboissière, 1920b. Lectotype: ♀ "Museum Paris, Ouganda Central, Ch. Alluaud 1909 / décembre / Type / *Monolepta striola* Laboi. V. Laboissière – Det. / Lectotypus *Monolepta striola* Laboissière, 1920 Th. Wagner desig. 2003 / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2003" (MNHN); this designation; examined (coloration similar to Fig. 18e); type locality: Central Uganda. – Paralectotype: 1 ♂, same data as lectotype. LABOISSIÈRE mentioned at least two specimens "Muséum Paris et coll. Laboissière" from one locality in his original publication.

Monolepta consociata Laboissière, 1920b. Holotype: ♂, "Afrique or. Anglaise, Mt. Kénya vers ouest, Zone inférieure, Alluaud & Jeannel / Rivière Amboni, Vallée boisée, 1800m, Janv.-Fév. 1912- St. Et 51 / Type / Muséum Paris, coll. Générale / *Monolepta consociata* Lab.

V. Laboissière – Det. / Holotypus / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2003" (MNHN); examined (coloration like Fig. 18e); type locality: Kenya, Mt. Kenya, 0.09S/37.19E. LABOISSIÈRE mentioned "un exemplaire, Muséum de Paris", holotype by monotypy after article 73.1.2, ICZN rules.

Monolepta rugifrons Laboissière, 1920b. Holotype: ♂ "Museum Paris, Afrique Orient. Angl., Kénia N.-O., Prairies 2000 m, Ch. Alluaud 1909 / novembre / Type / *Monolepta rugifrons* Laboi. V. Laboissière – Det. / Holotypus / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2003" (MNHN); examined (coloration like Fig. 18e); type locality: Kenya, Mt. Kenya, 0.09S/37.19E. Laboissière mentioned "un ♂, Muséum de Paris", holotype by monotypy after article 73.1.2, ICZN rules.

Monolepta femoralis Laboissière 1940. Lectotype: ♀ "Holotype *femoralis* [invalid indication] / Congo Belge: P.N.A., Rwindi, 1000m, 22. au 24.-xi-1934, G. F. de Witte: 792 / Lectotypus *Monolepta femoralis* Laboissière, 1940 Th. Wagner desig. 2003 / *Monolepta vincta* Gerstaecker, 1871 Th. Wagner det. 2003" (MRAC); this designation; examined (coloration like Fig. 18c); type locality: Congo, Kivu, Rwindi, 0.47S/29.17E. – Paralectotypes: 7 ex. "Paratype *femoralis*" / Congo Belge: P.N.A., Rwindi, 1000m, 22. au 24.-xi-1934, G. F. de Witte: [several numbers] (1 ex. IRSNB, 6 ex. MRAC); 3 ex. "Paratype *femoralis*" / Congo Belge: P.N.A., Ndeko (Près Rwindi), 1082m, 27-xi-1934, G. F. de Witte: 839" (MRAC); 1 ex. "Paratype *femoralis*" / Congo Belge: P.N.A., Entre Kalinga et Bitshumbi, 1082m–925m, 12-xi-1934, G. F. de Witte: 741" (MRAC). LABOISSIÈRE mentioned 17 specimens from the four locations in his original publication of which were 12 specimens available.

Further material examined. **Angola:** 1 ex., Dundo, 12.35S/15.12E, VIII.1953, E. Luna de Carvalho (MRAC); 1 ex., 5 mls SW Cacula, 12.22S/15.34E, III.1972, Southern African Exp. B.M. 1972–1, at light (BMNH); 8 ex., Salazar, 9.18S/14.55E, III.1972, Southern African Exp. B.M. 1972–1, at light (BMNH); 3 ex., Bruco, 15.07S/13.11E, III.1972, Southern African Exp. B.M. 1972–1, damp leaf litter by stream (BMNH); 1 ex., 12 mls SW Luimbale, 12.15S/15.19E, III.1972, Southern African Exp. B.M. 1972–1, at light (BMNH); 1 ex., Dolondola, 13.49S/13.07E, XI.1974 (INMNW). – **Benin:** 1 ex., Niaouli, mais station, 6.45N/2.08E, VI.1952 (MNHN); 3 ex., Zanbbara, 10.28N/3.32E, IX.1969, G. Pierrard (MRAC). – **Burkina Faso:** 1 ex., Bobo-Dioulasso, 11.11N/4.08W, X.1964, R. Siffointe (MRAC); 4 ex., Quagadougou, 12.22N/1.31W, XI.1973, R. Linnavuori (MZHF). – **Burundi:** 2 ex., Bururi, 3.48S/29.35E, ex coll. Breuning (MRAC); 1 ex., Urundi, II.1897, Ramsay & Hösemann (ZMHB); 1 ex., Mahembe, terr. Nyanza, 1400 m, I.1953, P. Basilewsky (MRAC); 1 ex., Bururi, II.1959, P. Giraudin (MNHN); 2 ex., Mugera, 3.04S/30.40E, 1965, J. J. Rwabuneza (MRAC); 6 ex., Bururi, 1800–2000, III.1953, P. Basilewsky (3 BMNH, 3 MRAC); 1 ex., Bujumbura, 3.22S/29.31E, IX.1969, P. Giraudin, ex coll. Breuning (MRAC); 2 ex., Ngozi, 2.52S/29.56E, II.1979,

J. Decelle (MRAC); 3 ex., Gitega, 3.29S/29.57E, II.1979, J. Decelle (MRAC). — **Cameroon:** 2 ex., Kamerun, Tessmann (ZMHB); 2 ex., Victoria, 4.02S/9.21E (MNHN, HNHM); 1 ex., Joko, 5.29N/12.19E (ZMHB); 1 ex., Ndzida Forest, V.1952 (MNHN); 1 ex., Joko, I.1957, J. Cantaloube (MRAC); 3 ex., N'Kongsamba, 4.59N/9.53E, V.1957, J. Cantaloube (MNHN); 2 ex., Bas Logone, Birni, 11.47N/15.05E, VIII.1963, J. Péricart (MNHN); 1 ex., N'Kolbisson, 3.25N/11.00E, VI.1966, B. de Miré (MNHN); 1 ex., Plateau de Kounden, 5.42N/10.40E, VIII.1967, L. Matile (MNHN); 1 ex., Haute Nguemba, VIII.1967, L. Matile (MNHN); 1 ex., Bafoussam, 5.31N/10.25E, II.1969, N. Berti (MNHN); 5 ex., Logone-Ufer, 65 km S. F. Foureau, 11.30N/14.56E, VII.1978, *Salix* (CMA). — **Central African Republic:** 1 ex., Pays Mandjia, 5.46N/19.43E, Miss. Chari-Tchad, 1904, J. Decourse (MNHN); 1 ex., Bessou, amont Fort de Possel, 4.41N/17.33E, Miss. Chari-Tchad, VI.1904, J. Decourse (MNHN); 2 ex., Fort de Possel, 5.01N/19.15E, Miss. Chari-Tchad, IX.1904, J. Decourse (MNHN); 2 ex., Babua, Obersanga, 5.48N/14.49E, II.1914, Tessmann (ZMHB); 6 ex., Bosum, Uam-Gebiet, 6.19N/16.38E, III.1914, Tessmann (ZMHB); 2 ex., Bambari, 4.13N/17.35E, III.1964, G. Pierrad (MRAC). — **Chad:** 5 ex., Gory-Damraou, 10.06N/17.35E, Miss. Chari-Tchad, VI.1904, J. Decourse (MNHN); 3 ex., Fort Archambault, 9.08N/18.22E, Bahr el Azreg, Miss. Chari-Tchad, V.1904, J. Decourse (MNHN); 1 ex., N'Gouri, Kanem distr., 15.38N/15.22E, VIII.1958, P. Renaud (MRAC); 1 ex., Bas Chari, env. de Fort Foureau, 12.05N/14.56E, VII.1963, J. Péricart (MHNH); 1 ex., Bas Chari, env. de Fort Lamy, Farcha, 12.10N/14.59E, VII.1967, J. Péricart (MNHN); 9 ex., Bebedja, 8.41N/16.34E, V.1973, R. Linnavuori (MZHF); 1 ex., Farcha, 12.27N/15.13E, V.1973, R. Linnavuori (MZHF); 1 ex., Lamto, 13.24N/15.01E, V.1990, H. Perrin (MNHN). — **Congo-Brazzaville:** 2 ex., Fort-Crampel, 7.00N/19.10E (ZMUH). — **Congo:** 1 ex. (NHRS); 1 ex., Dybowski (MNHN); 1 ex. Tavares (ZMHB); 3 ex., Chiloango, 5.12S/12.07E, Tschoffen (2 ex. IRSNB, 1 ex. MRAC); 3 ex., Matadi, 5.59S/13.27E Tschoffen (IRSNB); 1 ex., Ituri, La Moto, Madyu, 2.54N/29.37E, L. Burgeon (MRAC); 7 ex., Banana Boma, 6.01S/12.24E, 1891, M. Tschoffen, Jacoby coll., *pulchella* Klug (1 ex. BMNH, 4 ex. IRSNB, 2 ex. MRAC); 1 ex., SW Albert-Njansa, Undusuma, 1050 m, VII.1891, Stuhlmann (ZMHB); 1 ex., SW Albert-Njansa, Buessa, VIII.1891, Stuhlmann (ZMHB); 4 ex., Dima, 3.29N/18.42E, IX.1908, A. Koller (MRAC); 1 ex., Matadi, IX.1910, Dr. Bequaert (MRAC); 45 ex., Congo da Lemba, 5.42S/13.42E, V., X.-XII.1911, V., X.1912, I.-III.1913, R. Mayné (MRAC); 4 ex., Elisabethville, 11.40S/27.28E, X.1911, Miss. Agric. (MRAC); 3 ex., Kapiri, 9.42S/27.13E, X.1912, Miss. Agric. (MRAC); 1 ex., Banza, Manteka, 5.28S/13.47E, VI.1912, R. Mayné (MRAC); 2 ex., Amadi, 3.35N/26.47E, II.1913, P. van den Plas (MRAC); 1 ex., Kiniati-Zobe, 5.07S/12.37E, XII.1915, R. Mayné (MRAC); 1 ex., Mayumba, Zobe, 5.07S/12.37E, I.1916, R. Mayné (MRAC); 2 ex., Mayumbe, Lemba, 4.45S/14.15E, VII.1917, R. Mayné (MRAC); 8 ex., Nyangwe, 4.13S/26.11E, III.-IV.1918, R. Mayné (MRAC); 1 ex., Albertville, 5.56S/29.12E, XII.1918, R. Mayné (MRAC); 1 ex., Madyu, 1919, L. Burgeon (MNHN); 1 ex., Kisantu, 5.07S/15.05E, V.1919, P. Vanderijst (MRAC); 1 ex., Boma, VII.1920, H. Schouteden (MRAC); 3 ex., Haut-Uele, Watsa, 3.03N/29.32E, XI.1919, 1922, L. Burgeon (MRAC); 1 ex., Dungu, 3.37S/28.34E, IV.1920, P. van den Plas (MRAC); 2 ex., Matadi, 5.49S/13.27E, X.1920, L. Burgeon (MRAC); 2 ex., Elisabethville, R. Lubumbashi, XI.1920, M. Bequaert (MRAC); 4 ex., Haut-Uele, Moto, 2.27N/26.25E, 1922, 1923, I.1925, L. Burgeon (MRAC); 1 ex., Kwamouth, 3.10S/16.12E, I.1922, H. Schouteden (MRAC); 5 ex., Haut-Uele, Abimva, 3.09N/29.50E, V.-VII.1925, L. Burgeon (MRAC); 1 ex., Katanga, Nyonga, V.1925, G. F. de Witte (MRAC); 4 ex., Haut-Uele, Yebo Moto, I.-II., IX.1926, L. Burgeon (MRAC); 1 ex., Kivu, Mokoto, 1.15S/29.00E, 1927, G. Babault (MNHN); 2 ex., 18 m SW of Elisabethville, 11.42S/27.25E, 1927, Dr. H. S. Evans (BMNH); 2 ex., alto Uelle, fl. Duru, 3.45N/28.02E, III.1927, F. S. Pratizi (MCSN); 3 ex., alto Uelle, Yakuluku, 4.20N/28.48E, IV.1927, F. S. Patrizi (MCSN); 1 ex., alto Uelle, Kapili, 3.42S/27.53E, V.1927, F. S. Patrizi (MCSN); 1 ex., Uvira, 3.24S/29.08E, 1930, G. Babault (MNHN); 1 ex., Lomami, Kambaye, 6.53S/23.44, VIII.1930, P. Quarré (MRAC); 1 ex., Lulua, Sandoa, 9.41S/22.52E, X.1930, G. F. Overlaet (MRAC); 18 ex., Kivu, Rwindi, 0.47S/29.17E, 1000 m, XI.1931, XI.1934, G. F. de Witte (IRSNB); 1 ex., Ubangi, Dongo, 2.43N/18.24E, XII.1931, H. J. Brédo (MRAC); 1 ex., Lulua, Tshala, 7.56S/18.08E, VII.1932, G. F. Overlaet (MRAC); 3 ex., Lomami, Kaniama, 0.04N/24.16E, VII.1932, R. Massart (MRAC); 1 ex., Ruwenzori, Kalonge, 0.20N/29.48E, 2050 m, VIII.1932, L. Burgeon (MRAC); 1 ex., Beni, 0.30N/29.28E, VIII.1932, L. Burgeon (MRAC); 1 ex., Kivu, Lulenga, 1.25S/29.23E, IX.1932, L. Burgeon (MRAC); 3 ex., Kivu, Ngoma, 2.04S/29.55E, X.1932, L. Burgeon (MRAC); 1 ex., Kivu, Katana, XI.1932, L. Burgeon (MRAC); 3 ex., Lulua, Kapanga, 8.21S/22.35E, XII.1932, III.1933, F. G. Overlaet (MRAC); 1 ex., Luvungi, 2.52S/29.02E, XII.1932, L. Burgeon (MRAC); 1 ex., Albertville, I.1933, I. Burgeon (MRAC); 38 ex., Kivu, Rutshuru, 1.11S/29.27E, 1285 m, XII.1933, VI.1934, VI.-VII.1935, G. F. de Witte (25 ex. IRSNB, 12 ex. MRAC); 3 ex., Kilo, Dele, 1.49N/30.16E, IV.1934, H. J. Brédo (MRAC); 2 ex., Ruhengeri, Source Kirii, 1.27S/19.00E, 1800 m, X.1934, G. F. de Witte (IRSNB, MRAC); 24 ex., P.N. Albert, Ndeko, 1.04N/20.04E, 1082 m, XI.1934, G. F. de Witte (12 ex. IRSNB, 12 ex. MRAC); 4 ex., P.N. Albert, May ya Moto, 0.53S/29.21E, 950 m, XI.1934, G. F. de Witte (IRSNB); 2 ex., P.N. Albert, Camp Rwindi, 0.48S/29.18E, 1000 m, XI.1934, G. F. de Witte (MRAC); 2 ex., P.N. Albert, Escarpment de Kabasha, 0.45S/29.13E, 1500 m, XII.1934, G. F. de Witte (IRSNB); 2 ex., Bunia, 1.34N/30.15E, IV.1935, H. J. Brédo (MRAC); 4 ex., P.N. Albert, Nyasheke, Volc. Nyamuragira, 1.23S/29.19E, 1820 m, VI.1935, G. F. de Witte (IRSNB); 2 ex., P.N. Albert, Mayumbu, Volc. Nyamuragira, 1.25S/29.12E, 2100 m, VI.1935, G. F. de Witte (IRSNB); 2 ex., P.N. Albert, R. Ondo, affl. Rutshuru, VII.1935, H. Damas (MRAC); 3 ex., Kasenyi, 7.26S/24.10E, VII., IX.1935, VIII.1937, H. J. Brédo (MRAC); 3 ex., Eala, 0.04N/18.17E, IV.1936, J. Ghesquière (MRAC); 1 ex., P.N. Albert, Bitshumbi, 0.39S/29.22E, IV.1936, L. Lippens (IRSNB); 10 ex., P.N. Albert, r. Rwindi, II.-IV.1936, L. Lippens (MRAC); 61 ex., Rutshuru, V.1936, I.-V.1937, L. Lippens / Ghesquière (MRAC); 21 ex., Bambesa, 3.28N/25.43E, V.1937, J. Vrijdagh (IRSNB); 1 ex., Djugu, 1.55N/30.30E, V.1937, H. J. Brédo (MRAC); 11 ex., Niooka, 7.07S/26.37E, VII.1937, H. J. Brédo / J. Ghesquière (MRAC); 3 ex., Ituri, Bunia, 1.34N/30.15E, VII.1937, H. J. Brédo (1 ex. IRSNB, 2 ex. MRAC); 1 ex., Lac Albert, Mahagi, 2.18N/30.59E, VII.1937, J. Ghesquière (MRAC); 3 ex., Logo, 2.11N/30.56E, VII.1937, H. J. Brédo (MRAC); 1 ex., Lukolela, 1.03S/17.12E, 1938, R. Massart (IRSNB); 1 ex., Ubangi, Budjala, 2.39N/19.42E, VII.1938, C. Léontovitch (MRAC); 1 ex., Elisabethville, I.1939, H. J. Brédo (IRSNB); 1 ex., Mulungu, 4.54S/19.02E, 1939, Hendrickx (MRAC); 1 ex., Mayidi, 5.11S/15.09E, 1912, P. van Eyen (MRAC); 1 ex., Terr. Tanganyika, Malonge, 10.24S/23.10E, VI.1943, H. J. Brédo (IRSNB); 1 ex., Terr. Tanganyika, Katete, 10.54S/27.54E, VII.1943, H. J. Brédo (IRSNB); 1 ex., P.N. Albert, Kiseguro, riv. Mwindi, IV.1945, G. F. de Witte (MRAC); 3 ex., P.N. Albert, Rumangabo, 1.20S/29.22E, IV.1945, G. F. de Witte (MRAC); 158 ex., P.N. Upemba, 8.30S/26.00E, several locations, VI.1945, III., X.-XII.1947, II.-VII., X.1948, I.1949, G. F. de Witte (2 ex. IRSNB, 48 ex. MRAC); 3 ex., W. Ruwenzori, 0.23N/29.54E, 6000 ft.,

VII.1945, v. Someren (NMK); 10 ex., Rwankwi, 1.32S/29.32E, IV.1946, IV.1948, XII.1947, VI., XI.1951, J. V. Leroy (MRAC); 1 ex., Bokima, IV.1948, J. V. Leroy (MRAC); 1 ex., Stanleyville, Yaolema, 1.54N/22.47E, IV.1949, R. Laurent (MRAC); 1 ex., P.N. Upemba, Lusinga, 8.56S/27.12E, 1760 m, V.1949, G. F. de Witte (IRSNB); 465 ex., P.N. Garamba, 3.40N/29.00E, several sub locations, XII.1949, I.-III., V., VIII., X.-XI.1950, I.-XII.1951, I.-III., VI.-VII.1952, Miss. H. de Saeger (65 ex. IRSNB, 400 ex. MRAC); 19 ex., Elisabethville, XI.1950/VI.1951, 1953, 1955, I.1956, I.1957, IX.1958, V.1959, Ch. Seydel (MRAC); 4 ex., P.N. Albert, Bomboka, Kyandolire, 1650 m, X.1952, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 ex., Tanganika, Kamena, 7.25S/28.46E, 1400 m, Riv. Kinga, I.1953, H. Bomans (MRAC); 10 ex., P.N. Albert, Kalonge, 1.18S/28.24E, 2060 m, II.1953, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 2 ex., P.N. Albert, Haut Lume, Nyamgaleka, 0.15N/29.48E, 2120 m, IV.1953, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 ex., P.N. Albert, Moyenne Lume, Kiribata, 0.16N/29.48E, 1760 m, IV.1953, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 ex., P.N. Albert, Migeri, riv. Kamukungu, 1700 m, IV.1953, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 2 ex., Lubero, Mulo, 0.08S/29.16E, 1950 m, II.1954, R. R. P. P. Celis-Bergmans (MRAC); 1 ex., Tanganika, Albertville, IV.-V.1955, H. Bomans (MRAC); 1 ex., Uvira, Itombwe, Hte. Kambekulu, 4.04S/28.40E, 2450 m, VI.1955, N. Leleup (MRAC); 1 ex., P.N. Albert, Mt. Musima, 2.19S/29.17E, 2450 m, IV.1955, P. Vanschuytbroeck & R. Fonteyn (MRAC); 2 ex., P.N. Albert, Tschiaberimu, Mt. Buliwa, 2.04S/28.55E, 2450 m, IV.1955, P. Vanschuytbroeck & R. Fonteyn (MRAC); 14 ex., P.N. Albert, Mt. Hoyo, 1.13N/29.49E, 1280 m, VII.1955, P. Vanschuytbroeck (3 ex. IRSNB, 11 ex. MRAC); 1 ex., Kivu, Luvungi, 2.52S/29.02E, III.1956, J. Decelle (MRAC); 1 ex., P.N. Albert, Kanyatsi, 0.35S/29.18E, 912 m, VII.1956, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 ex., P.N. Albert, Kasindi-Port, 2.20S/28.42E, 912 m, VII.1956, P. Vanschuytbroeck (MRAC); 1 ex., P.N. Albert, Semliki, 0.08S/29.36E, 912 m, VIII.1956, P. Vanschuytbroeck (MRAC); 1 ex., P.N. Albert, Molidi, Watalinga, 0.40N/29.40E, 1210 m, IX.1956, P. Vanschuytbroeck (MRAC); 1 ex., P.N. Albert, Rugetsi, 0.13N/29.40E, 1100 m, X.1956, P. Vanschuytbroeck (MRAC); 2 ex., P.N. Albert, Ihumbia, 0.00/29.40E, 1050 m, XI.1956, VIII.1957, P. Vanschuytbroeck (MRAC); 1 ex., P.N. Albert, Téte de source Indray, 1840 m, XI.1956, P. Vanschuytbroeck (MRAC); 2 ex., P.N. Albert, Mati, Talya, 0.31N/29.20E, 1180 m, I., VIII.1957, P. Vanschuytbroeck (MRAC); 1 ex., P.N. Albert, Mutsora, 0.19N/29.45E, 1340 m, II.1957, P. Vanschuytbroeck (MRAC); 1 ex., P.N. Albert, Kanyatsi, Lac Edour, 0.08S/29.37E, 912 m, V.1957, P. Vanschuytbroeck (MRAC); 1 ex., M'Paka, terr. Libenge, 4.46N/19.14E, VII.-VIII.1959, M. Pecheur (MRAC); 9 ex., Lualaba, Ruwe, 10.39S/25.30E, II.1960, V. Allard (MRAC); 2 ex., Katanga, Kolwezi, 10.43S/25.28E, X.1961, V. Allard (MRAC); 1 ex., Mongo, 0.02N/18.19E, III.1975 (MZUF); 1 ex., Baraka, 4.06S/29.06E, VIII.1979, coll. Roggeman (CBe). — **Eritrea:** 1 ex., Erythrée, coll. Clavareau (MRAC); 2 ex., Asmara, 15.20N/38.56E (BMNH, MNHN); 2 ex., Dint. Di Massaua, 15.30N/39.20E, 1884, Frasca (MCSN); 13 ex., Agordat, 15.33N/37.53E, I.1906, D. Figini (MCSN); 10 ex., Agordat, II.1930, E. Zavattari (MCSN); 3 ex., Ghinda, 15.27N/39.03E, III.1906, D. Figini (MCSN); 1 ex., Decamere, 15.04N/39.03E, V.1963, R. Linnnavuori (MZHF). — **Ethiopia:** 1 ex., Abyssinie, coll. Clavareau (MRAC); 3 ex., Abyss., Raffray, ex Mus. E. Allard (MNHN); 10 ex., Abyssinia, Vallis Eerer, 9.10N/39.50E, Kovács (HNHM); 1 ex., N. Dalla, 7.43N/40.55E, Jando (MNHN); 6 ex., Tigre, 1850, Schimper (MNHN); 1 ex., Abyssinia, Voy. A. Raffray, 1881 (MNHN); 1 ex., Arussi Galla, Ganale Gudda, 4.16N/42.01E, V.1893, V. Bottego (MCSN); 2 ex., Kashinuaha, Tshertsher, I.1899, Dmitriev (ZISP); 1 ex., Buroma, Tshertsher, I.1899, Dmitriev (ZISP); 1 ex., N. Galla, 11.30N/40.00E, XI.1900, v. Erlanger (ZMHB); 1 ex., Wallega, 9.00N/35.30E, VI.1904, Dmitriev (ZISP); 3 ex., Addis Abeba, 9.02N/38.42E, XII.1910, C. Cterni (MCSN); 3 ex., Between Addis Allem and Djem Djem, 9.02N/38.24E, 7000-8000 ft, IX.1926, H. Scott (BMNH); 1 ex., Plains NW of lake Zwai, 7.56N/38.43E, 5500-6000 ft, X.-XI.1926, H. Scott (BMNH); 5 ex., Mt. Chillálo, 7.55N/39.16E, 8500 ft, XI.1926, H. Scott (BMNH); 1 ex., Mt. Chillálo, 7000-8000 ft, XI.1926, J. O. Cooper (BMNH); 5 ex., Addis Abeba, 1928, 1930, Schürhoff (ZMHB); 1 ex., Gondar, 12.36N/37.28E, 1932, Miss. M. Griaule (MNHN); 1 ex., Arero, 4.45N/38.49E, IV.1937, Miss. Zavattari nei Borana (Trieste); 1 ex., El Diee, V.1939, Miss. Zavattari Sagan Omo (Trieste); 1 ex., Caschei nei Borana, 5.00N/39.00E, VII.1939, Miss. Zavattari (Trieste); 1 ex., V. Zuai, 8.00N/38.50E, II.1954, Exped. Smeds (MZHF); 2 ex., Asella, 7.57N/39.08E, VIII.1954, Exped. Smeds (MZHF); 2 ex., Belleta Forest, 7.32N/36.31E, VI.1963, R. Linnnavuori (MZHF); 1 ex., Shashamaanni, VI.1963, R. Linnnavuori (MZHF); 4 ex., Addis Abeba, VII.1963, P. M. Schroeder (USNM); 1 ex., Shoa Prov., Wolisso, 8.32N/38.00E, VI.1971, R. O. S. Clarke (MRAC); 1 ex., Belleta Forest, 40 km SW Jimma, V.1971, R. O. S. Clarke (MRAC); 1 ex., Gibbie Riv., 175-185km SW Addis Abeba, V.1971, R.O.S. Clarke (MRAC); 1 ex., Gogeb river valley, 80 km SW Jimma, 7.20N/37.21E, 1650 m, VII.1971, R. O. S. Clarke (MRAC); 1 ex., Illubador Prov., 8 km N of Bedelle, 8.27N/36.20E, 1800 m, V.1972, R. O. S. Clarke (MRAC); 1 ex., Gemu Gofa Prov., Chencha, Gughé Mts., 6.12N/37.30E, 2800 m, IX.1972, R. O. S. Clarke (MRAC); 1 ex., Shoa, Awash Station, 6.58N/35.46E, IX.1973, G. de Rougemont (MRAC); 1 ex., Jimma, 7.40N/36.50E, II.1974, H. Silfverberg (MZHF); 6 ex., Addis Abeba, II.1974, H. Silfverberg (MZHF); 3 ex., Harage Alemaya, 9.23N/41.56E, II.1974, H. Silfverberg (MZHF); 2 ex., Kaffa Shebe, 7.40N/36.35E, II.1974, H. Silfverberg (MZHF); 4 ex., Arba Minch, 6.02N/37.33E, III.1974, H. Silfverberg (MZHF); 6 ex., Lake Langano, 7.38N/38.42E, sweep-netted, X.1980, A. Demeter (HNHM); 7 ex., Shafartak Bridge, Blue Nile, Abbai Gorge, 10.05N/38.18E, sweep-netted, X.1980, A. Demeter (HNHM); 4 ex., Koka, 8.20N/38.40E, sweep-netted, X.1980, A. Demeter (HNHM); 1 ex., Sodere, 8.24N/39.22E, sweep-netted, XI.1980, A. Demeter (HNHM); 8 ex., Akaki river, 8.50N/38.43E, sweep-netted, XI.1980, A. Demeter (HNHM); 1 ex., Awash NP, 11.30N/41.40E, sweep-netted, XI.1980, A. Demeter (HNHM); 1 ex., env. Pastoria, IX.1984, L. Medvedev (CMe); 2 ex., Gambella, 8.15N/34.35E, XI.1986, L. Medvedev (CMe); 1 ex., 30 km NW Gambella, XII.1986, L. Medvedev (CMe); 2 ex., pr. Illubabur, 20 km E Abobo, 7.51N/34.40E, XII.1986, L. Medvedev (CMe); 7 ex., Addis-Abeba, 2700, VIII.1988, X.-XI.1990, L. Medvedev (CMe); 1 ex., Sabata, 2000 m, XII.1988, L. Medvedev (CMe); 2 ex., Shoa, Debre Zeyt, 10.35N/35.48E, V.1989, Werner, coll. Döberl (CBe); 1 ex., Shewa, Rift Asella Valley, 7.57N/39.08E, III.-V.1989, Dèdoch (CBz); 17 ex., Ambo, 11.15N/39.34E, X.1990, Acacia, L. Medvedev (CMe); 2 ex., Arsi, reg. Mondo genet, 7.30N/39.30E, 1850 m, XIII.1990, Werner, coll. Döberl (CBe); 2 ex., Shoa, Lake Langano, 1600 m, VI.1990, Werner (MZUF); 8 ex., Shewa, Debre Lib., 9.04N/38.05E, 2500 m, III.1997, M. v. Tschirnhaus (ZFMK). — **Gabon:** 1 ex., Kankan, 0.02S/12.14E, VIII.1937, L. Berland (MNHN). — **Gambia:** 6 ex., Ht. Gambie, 13.15N/16.00W, II.-I. II.1901, E. Laglaize (MNHN); 3 ex., Kouroussa, 10.40N/9.52W, XI.1995, Lange (CBe). — **Ghana:** 1 ex., Gold Coast (BMNH). — **Guinea:** 2 ex., Dalaba, 10.47N/12.12W, XII.1910, A. Chevalier (MNHN); 2 ex., Dalaba, 1200 m, VIII.1945, H. Durand (MNHN); 4 ex., Seredou, 8.23N/9.23W, IV.1975, A. Zott, lux (ZMHB); 8 ex., Tabuna, 9.31N/12.26W, IX.1983, III.1984, C. B. Myrzin (CMe); 4 ex.,

Telimela, II.1984, C. B. Myrzin (CMe); 1 ex., Kotento Yoko, III.1984, C. B. Myrzin (CMe). — **Guinea-Bissau:** 6 ex., Bolama, 11.33N/15.37W, VI.–XII.1899, L. Fea (MCSN); 1 ex., Contubo, 12.04N/15.23W, I.1938, coll. Laboissière (MRAC); 1 ex., Missão da Guiné, Aldeia de Cuor, II.1946, Dr. E. Frade (IINCT). — **Ivory Coast:** 1 ex., Ashante, 7.10N/1.40W, Baly coll. (BMNH); 1 ex., Dimbroko (MHNH); 1 ex., G. Melou (MNHN); 2 ex., Haut Sassandra, pays Youra, 4.50N/6.00W, V.1910, F. Fleury, A. Chevalier (MNHN); 3 ex., Haut Sassandra, pays Dyola, 4.40N/6.20W, 1910, F. Fleury, A. Chevalier (MNHN); 2 ex., Danané, 7.19N/8.06W, I.1939, L. Chopard (MNHN); 4 ex., Adiopodoumé, II., X., XII.1947, Ch. Primot (MNHN); 1 ex., Adiopodoumé, IX.1952, coll. P. Cachan (MNHN); 1 ex., Akandjé, 5.24N/3.54W, I.1962, E. Lavabre (MNHN); 9 ex., Bingerville, 5.20N/3.52W, VI., IX.–X.1962, III.1964, J. Decelle (MRAC); 1 ex., Zeprehé, Daloa, 6.56N/6.28W, IX.1962, J. Decelle (MRAC); 6 ex., Koun-Abronso, 7.31N/3.15W, XI.1961, I.1962, J. Decelle (MRAC); 2 ex., Nguessankro, Bougounanou, 7.57N/5.08W, X.1963, J. Decelle (MRAC); 1 ex., Ferkessédougou, 9.20N/5.00W, V.1964, J. Decelle (MRAC); 2 ex., Foro-Foro, 7.59N/5.03W, IX.1973, R. Linnavuori (MZHF); 2 ex., Man, X.1973, R. Linnavuori (MZHF); 16 ex., Comeo NP, 8.75N/3.80W, VI.–VII.1997, C. Mody (ZFMK). — **Kenya:** 2 ex., Kenia, Varendorff, coll. Kraatz (DEI, ZMUH); 1 ex., Nairobi, Ngong Forest, 1.22S/36.40E, 1900 m (IRSNB); 2 ex., Kibwezi, 2.25S/37.58E, XI.1887, G. Scheffler (ZMHB); 2 ex., Escarpment, 6500–9000 ft, IX.1900–IV.1901, W. Doherty (MNHN); 1 ex., Simba, 3350 ft, IV.1911, S. A. Neave (BMNH); 2 ex., Voi, 3.23S/38.35E, II.1912, S. A. Neave (BMNH); 1 ex., Ramissi, XI.1915, Methner (ZMHB); 1 ex., Tana River, VI.1915, G. Babault (MNHN); 1 ex., Fort Hall, 0.45S/37.00E, XII.1919, Patrizi (MCSN); 1 ex., Kisumu, 0.06S/34.45E, 3756 ft, XI.1920, A. F. J. Gedye (BMNH); 1 ex., Nairobi, 1.17S/36.50E, XI.1920, A. F. J. Gedye (NMK); 3 ex., Chania Falls, Thika, 1.03S/37.05E, 5050ft, I.1921, A. F. J. Gedye (NMK); 2 ex., Nairobi, 1.17S/36.50E, V.1921, VI.1937, A. F. J. Gedye (NMK); 1 ex., Kabete, 1.16S/36.43E, VIII.1921, H. E. Box (BMNH); 1 ex., Machakos, 2.00S/37.40E, XII.1923, J. W. Hunt (NMK); 1 ex., Ngong KC, 1.22S/36.40E, VIII.1925, A. F. J. Gedye (NMK); 1 ex., Gasi, 4.25S/39.30E, XI.1927, Dr. van Someren (NMK); 1 ex., Thika, 1.03S/37.05E, IV.1930, coffee (BMNH); 1 ex., Yala River près Kisumu, 0.04S/34.05E, X.1930, coll. G. Babault (MNHN); 2 ex., Kaimosi, 0.12N/34.57E, III.–IV.1932, A. Turner (NMK); 2 ex., Marakwet, Kigeyo Escarpment, 1.05N/35.37E, 1932–1933, Miss. de l’Omo, C. Arambourg et al. (MNHN); 3 ex., Elgon Saw mill, Mt. Elgon, ver est, 1.05N/34.40E, 2470 m, 1932–1933, Miss. de l’Omo, C. Arambourg et al. (MNHN); 1 ex., Thika Falls, Kukuyi, 1700 m, 1932–1933, Miss. de l’Omo, C. Arambourg et al. (MNHN); 1 ex., Suam fishing hut, Mt. Elgon vers est, 1.06N/34.33E, 2400 m, 1932–1933, Miss. de l’Omo, C. Arambourg et al. (MNHN); 1 ex., Nairobi, 1660 m, 1932–1933, Miss. de l’Omo, C. Arambourg et al. (MNHN); 1 ex., Lower Tana, Sabaki, 3.09S/40.07E, IV.–V.1932, Turner-Mac Arthur (NMK); 2 ex., Kisumu, IV.1936, H. J. A. Turner (NMK); 2 ex., Kanziko, 1.49S/38.15E, IX.1936, V.1937, Mac Arthur (NMK); 1 ex., Athi Falls, VII.1937, A. F. J. Gedye (NMK); 1 ex., Karakuta, 1.03S/36.57E, VIII.1937, R. E. Toker (NMK); 6 ex., Kitui, 1.22S/38.01E, X.1937, R. Toker (NMK); 2 ex., Lake Baringo, 0.38N/36.05E, 3400 ft, I.1938, D. G. MacInnes (NMK); 1 ex., Stoneham, E. Surr. Estate, II.1938 (NMK); 1 ex., Malakisi, 0.41N/34.25E, 1600 m, II.1938, Å. Holm (NHRS); 1 ex., Mt. Elgon, River Swam, 1.48N/35.09E, 2000 m, II.1938, Å. Holm (NHRS); 2 ex., Kaptega Estate, 1.11N/34.46E, 2050 m, IV.1938, Å. Holm (NHRS); 1 ex., Thika Dist., 1.00S/37.20E, IV.1938, S. Blom Bjorner (NMK); 63 ex., Chyulu Hills, 2.35S/37.50E, 5600 ft, IV.–VII.1938, Coryndon Museum (62 ex. NMK, 1 ex. USNM);

3 ex., Thika, 1.04S/37.02E, X.1937, X.1938, S. Blom Bjorner (1 ex. BMNH, 2 ex. NMK); 2 ex., Kabete, 1.16S/36.43E, 5800 ft, XII.1938, I.1939, Mac Innes (BMNH, NMK); 2 ex., Malindi, 3.13S/40.07E, V.1940, G. W. Jeffery (BMNH, NMK); 1 ex., Karura Forest, 1.30S/36.46E, II.1941 (NMK); 2 ex., Nairobi, IV.1943, Meneghetti (NMK); 1 ex., Kaiti River, 1.45S/37.42E, II.1947, v. Someren (BMNH); 1 ex., Taita Hills, 3.25S/38.20E, VIII.1947, van Someren (NMK); 1 ex., Mombasa, 4.04S/39.40E, IX.1947, T. H. E. Jackson (NMK); 1 ex., Mombasa, VIII.1948, A. F. J. Gedye (NMK); 1 ex., Kange-Ngomoni Road, 0.50S/38.25E, V.1951, sweep net attached to car 6 ft above ground (BMNH); 2 ex., Diani Beach, 4.18S/39.35E, VII.–VIII.1951, N. L. H. Krauss (BMNH); 1 ex., Nairobi, I.1953, E. Pinhey (NMK); 1 ex., Taveta, 15 km E, 3.23S/37.42E, VII.1968, N. Sanfilippo (MCSN); 8 ex., Nairobi, VIII.–X.1969, M. P. Cliften (NMK); 1 ex., Kisumu, XII.1970, A. E. Stubbs (BMNH); 1 ex., Tiwi Beach, 4.14S/39.35E, V.1971, B. D. Valentine coll. (BPBM); 1 ex., L. Naivasha, Crescent Island, 0.54S/36.37E, 6200 ft, I.1972, C. F. Huggins (BMNH); 3 ex., Kora Rock, Tana River Exp., VII.1976, tilley lamp (NMK); 10 ex., Kaptega, 1980 m, I.–II.1979, T. E. Leiler (NHRS); 1 ex., Naro Moru, 0.10S/37.01E, VIII.1979 (NNML); 4 ex., Stony Athi, 1.35S/37.00E, VI.1980, D. G. Furth (USNM); 5 ex., Langata Forest, 1.20S/36.47E, VI.1980, D. G. Furth (USNM); 2 ex., Nairobi, 1850 m, III.1981, E. Räsänen, at light (MZHF); 3 ex., Kora NR, 0.38S/37.00E, Base Camp, VIII.1983, M. Clifton (NMK); 2 ex., Nairobi, IX.1987, B. L. Parker (NMK); 1 ex., Kakamega Forest, 0.18N/34.53E, IV.1991, R. Copeland (NMK); 5 ex., Mt. Elgon NP, nr. Chepanyalli Cave, dry evergreen montane forest, 2500 m, I.1992, O. Merkl & G. Várkonyi (HNHM); 2 ex., Arabuko Sokoke FR, 3.20S/39.52E, IX.–X.1992, L. Bartolozzi (MZUF); 1 ex., Taita Distr., Bura, 3.30S/38.18E, VI.1994, L. Bartolozzi, B. Cecchi, A. Sforzi (MZUF); 2 ex., Masai Mara, 1.25S/34.55E, 1600 m, VI.1994, L. Bartolozzi (MZUF); 1 ex., Ngong Hills, Nairobi Res. Stat., XI.1995, R. Copeland (NMK); 1 ex., Kitale, Kapenguria, 2300 m, XII.1995, M. Snizek (MIZT); 1 ex., Taita Hills, Rongo Forest, 3.21S/38.26E, X.–XI.1996, Malaise trap, ICIPE (NMK); 1 ex., Taita Hills, Wundanyi, XI.1997, M. Snizek (MIZT); 1 ex., Nairobi, Langata, 1.20S/36.46E, 1650 m, I.1999, Th. Wagner, insecticidal fogging of *Teclea simplicifolia* (ZFMK); 1 ex., Taita Hills, n. Wundanyi, 3.24S/38.22E, 1660 m, III.1999, Th. Wagner (ZFMK); 1 ex., Mwingi, Ngumi, 0.56S/38.04E, XI.1999, M. Snizek (MIZT); 21 ex., Kakamega Forest, Kaimosi, 0.12N/34.57E, IX.2001, Th. Wagner et al. (ZFMK); 106 ex., Kakamega Forest, nr. Buyangu, 0.13N/34.44E, II., IV.2002, light trap (ZFMK); 5 ex., Chogoria, 0.14S/37.37E, 1800 m, X.2002, Co. & Th. Wagner (ZFMK). — **Malawi:** 1 ex., SW shore L Nyasa, between Ft. Johnson & Monkey Bay, 1650 ft, II.–II.1910, S. A. Neave (BMNH); 1 ex., W shore L Nyasa, between Domira Bay & Kotakota, 13.35S/34.27E, XI.1910, S. A. Neave (BMNH); 9 ex., Mlanje, 16.05S/36.29E, IV.–VII.1913, S. A. Neave (BMNH); 1 ex., Side of Mt. Mlanje, 16.00S/36.30E, 3000–4000 ft, XII.1913, S. A. Neave (BMNH); 3 ex., Zomdu Plateau, N. L. H. Krauss, B.M. 1957–3458 (BMNH); 1 ex., Mt. Mulanje, 15.58S/35.38E, 900 m, XII.1983, Bellamy (TMSA); 1 ex., Nyiaka Plateau, Chilinda, 10.19S/33.48E, 2250 m, IV.1991, D. Lachaise (MHNH). — **Mali:** 1 ex., cercle Kandia, 14.46N/11.30W, 1935, P. Malzy (MNHN); 14 ex., IRCT, M’Pesoba, 12.40N/5.43W, IX.–X.1969, VIII.–IX.1970, G. Pierrard (MRAC); 9 ex., Fana, 12.47N/6.57W, VIII.–IX.1969, VIII.1970, G. Pierrard (MRAC); 1 ex., Kassorola, 14.08N/7.25W, X.1969, G. Pierrard (MRAC); 5 ex., Lutana, IX.1969, VIII.1970, G. Pierrard (MRAC). — **Moçambique:** 1 ex., Mozamb. Nyassa, Thelwall (BMNH); 1 ex., Zambese, 1882, Du rand (MHNH); 1 ex., Beira, 19.49S/34.52E, III.1903, P. A. Sheppard (BMNH); 1 ex., Vallée du Revoué, env. d’Andrade,

18.52S/32.53E, XI.1905, G. Vasse (MNHN); 2 ex., Chibababa, Lower Buzi R., XII.1906, C. F. M. Swynnerton (BMNH); 2 ex., Vallée du Pongoué, Guengére, 18.45S/33.40E, VI.1906, G. Vasse (MNHN); 2 ex., Prov. du Gorongoza, Tendo du Sungoué, 18.32S/34.15E, 40 m, X.1907, G. Vasse (MNHN); 1 ex., Prov. du Gorongoza, Forêt Dinhanoonde, 360 m, X.1907, G. Vasse (MNHN); 2 ex., Zambéze, Nova Choupana pr. Chemba, 17.10S/35.00E, IV.1929, P. Lesne (MNHN); 1 ex., env. de Beira, Manga, 19.45S/34.50E, VII.1929, P. Lesne (MNHN); 1 ex., Ugano, Matengo-Hochland, wsw. V. Songen, 12.51S/35.48E, XII.1935, Zerny (HNHM); 1 ex., Missão Zoológica, Mufo, 10.37S/34.08E, VII.1948 (IICT); 1 ex., Missão Zoológica, Tica, 19.00S/33.07E, VII.1948 (IICT); 3 ex., Missão Zoológica, Gondola, 19.05S/33.39E, VIII.1948 (IICT); 7 ex., Missão Zoológica, Bengo, 19.04S/33.37E, VIII.1948 (IICT); 1 ex., Missão Zoológica, Zinai, VIII.1948 (IICT); 1 ex., Missão Zoológica, Cosme, Vila Coutinho, 18.40S/34.24E, IX.1948 (IICT); 2 ex., Missão Zoológica, Tambara, 16.44S/34.15E, IX.1948 (IICT); 1 ex., Missão Zoológica, Lifidzi, 14.33E/34.14E, IX.1948 (IICT). – **Nigeria:** 1 ex., Gomba, 12.55N/8.38E, Mataoro lakes, I.1929, Dr. Ll. Lloyd (BMNH); 1 ex., NW state, Kontagora River, 10.24N/5.29E, 3 mls. from Niger, VIII.1970, P. H. Ward, on semicultivated land (BMNH); 4 ex., SE State, Obudu Cattle Ranch, 6.38N/9.55E, VIII.1974, R. Linnavuori (MZHF). – **Rwanda:** 1 ex., Bugarama, 2.27S/29.29E, I.1926, H. Schouteden (MRAC); 1 ex., Gabiro, 1.53S/30.23E, X.1932, L. Burgeon (MRAC); 1 ex., Bugarama, V.1951 (IRSNB); 2 ex., Kisenyi, 1.41S/29.15E, VIII.1952, A. E. Bertrand (MRAC); 1 ex., Shangugu, 2.29S/28.54E, 1500 m, IV.1953, P. Basilewsky (MRAC); 1 ex., Kayove, terr. Kisenyi, 1.53S/29.21E, 2000 m, II.1953, P. Basilewsky (MRAC); 1 ex., terr. Ruhengeri, Kagogo, 1.22S/29.46E, 1900 m, I.1958, P. Basilewsky (MRAC); 3 ex., est Muhavura, 1.23S/29.40E, 2100 m, I.1958, P. Basilewsky (MRAC); 2 ex., env. Astrida, 2.36S/29.44E, 1954/1955, G. Foucart (MRAC); 1 ex., Nyarubuye, 1.58S/29.59E, III.1972, F. Cuypers (MRAC); 1 ex., Cyangugu, Nyakabuye, 2.10S/29.31E, X.–XI.1983, H. Mühle (CKi); 2 ex., Gako, Kibungo, 2.12S/30.27E, 1400 m, IX.1984, H. Mühle (CKi); 4 ex., Kigali, 2.00S/29.40E, X.1970, coll. Roggeman (CBe); 1 ex., Gifurwe, 1.33S/29.48E, IV.1972, coll. Roggeman (CBe); 2 ex., Mt. Kigali, V.1972, coll. Roggeman (CBe); 2 ex., Icyanya, X.1973, coll. Roggeman (CBe); 2 ex., Gisenyi, 1.41S/29.15E, IV.1973, coll. Roggeman (CBe); 1 ex., Tumba, 1.41S/29.57E, V.1973, coll. Roggeman (CBe); 3 ex., Nasho I, 2.02S/30.43E, VIII.1988, E. Fischer (ZFMK); 41 ex., Rusumo, Ibanda Makera, 2.13S/30.42E, X.1993 / IX.2002, Th. Wagner, partim insecticidal tree fogging of *Lannea fulva*, *Teclea nobilis* (ZFMK). – **Senegal:** 1 ex., Kati, 13.54N/14.57W, VII.1913, coll. Clavareau (MRAC); 1 ex., Sintiou-Maleme, 13.03N/15.18W, VIII.1939, J. Risbec (BMNH); 2 ex., Guede, 14.53N/15.52W, II.1946 (BMNH); 7 ex., Sébikotane, 14.45N/17.05W, XI.–XII.1945, III.1946, VII.1947, H. Durand (MNHN); 1 ex., Diakéne, 12.27N/16.37W, X.1960, Sala (MCTB); 1 ex., Sangalkam, 14.47N/17.13W, VIII.1967, A. Descarpentries et al. (MNHN); 1 ex., Sébikotane, VIII.1971, A. Villiers (MNHN). – **Sierra Leone:** 1 ex. (BMNH); 1 ex., *M. pulchella* Klug, Jac. coll. (BMNH); 1 ex., Baly coll. (BMNH); 1 ex., ex coll. J. Weise (ZMHB); 2 ex., Rhobomp, coll. Kraatz / coll. Jacoby (BMNH, DEI); 1 ex., ex coll. J. Weise (ZMHB); 1 ex., VIII.1892, Rev. D. Z. Morgan, *duplicata* Sahlberg (BMNH); 1 ex., Kaballa, 9.35N/11.33W, V.1912, J. J. Simpson (BMNH). – **Somalia:** 2 ex., Mogadiscio, 2.04N/45.22E, ex. coll. Breuning (MRAC); 1 ex., nr. Hargeissa, VI.1963, Linnavuori (MZHF); 1 ex., Mogadiscio, III.1974 (CMA). – **Sudan:** 1 ex., Latuka, 4.39N/32.33E, 1918, J. R. Yardley (IRSNB); 1 ex., W. Darfur, N. Jebel Murra, 10.21N/23.24E, 5600 ft., VII.1932, M. Steele (BMNH); 1 ex., Upper Nile, Malakal, 9.32N/31.39E, I.1963, Lin-

navuori (MZHF); 1 ex., Equatoria, Lotti Forest, 4.00N/32.32E, III.1963, R. Linnavuori (MZHF); 3 ex., Equatoria, Imatong Mts. nr. Gilo, 4.03N/32.51E, III.1963, Linnavuori (MZHF); 1 ex., Equatoria, Kapoeta-Boma, 4.46N/33.35E, II.1963, Linnavuori (MZHF); 1 ex., Jebel Marra, 12.55N/24.12E, Gallery forest, on dry rock in stream, IX.1983, R. Moore (BMNH). – **Tanzania:** 1 ex., Usambara, Nguela, 4.45S/38.30E (IRSNB); 1 ex., Moshi, 3.20S/37.21E, coll. Hauser (IRSNB); 1 ex., Zanzibar, 6.10S/39.12E, Raffray (MNHN); 12 ex., Ukerewe Island, 2.09S/32.52E, Conrads (4 ex. IRSNB, 8 ex. NMK); 1 ex., Arusha-Chini, Katona, 3.09S/38.26E (NMK); 1 ex., inter Marti et Arusha, Katona (NMK); 1 ex., Kiboshö, Katona (NMK); 2 ex., Montes Lettema, Katona (NMK); 1 ex., Kilimandjaro, 3.04S/37.22E, Katona (NMK); 1 ex., Kilimandjaro, Bornemissza (NMK); 1 ex., Kilimandscharo, Dschagga-Land, Madcharme, T. Paesler (ZMHB); 1 ex., “Kilimandjaro / ex. coll. Weise / Type / *Monolepta sjöstedti* m [invalid type] (ZMHB); 1 ex., “Kilimandjaro, Sjöstedt. 1905-6 / Kibonoto 00-1900 / ex. coll. Weise / Type [invalid type] (ZMHB); 1 ex., Kirumba b. Muansa, 2.31S/32.54E, Holtz (ZMHB); 4 ex., Parek, 2000 m, Ch. Schröder (ZMHB); 4 ex., Kikuiru, Massaisteppe, Ch. Schröders (ZMHB); 4 ex., Kilimandjaro, Sjöstedt (ZMHB); 1 ex., Kilimandjaro, Sjöstedt, Kibonoto, 1’–1200 m, IV. (NHRS); 1 ex., Kwai, 4.44S/38.21E, Paul W. (NHRS); 2 ex., Usambara, Derema, 4.45S/38.30E, 850 m, IX.–X.1891, Conradt (ZMHB); 2 ex., Langenburg, Ineteyanur nya a. Nyassa, 9.01S/33.39E, VI.1898, Fülleborn (ZMHB); 1 ex., Rungwe, 9.15S/33.40E, II.1899, Stolz (ZMHB); 1 ex., W.-Pemba, III.1903, Voeltzkow (ZMHB); 1 ex., Pemba, Chake-Chake, 5.15S/39.45E, IV.1903, Voeltzkow (ZMHB); 1 ex., Pemba, Fundu, 5.03S/39.39E, IV.1903, Voeltzkow (ZMHB); 2 ex., Moshi, 3.20S/37.21E, 1905, Fl. Rau, Katona (NMK); 1 ex., Amani, 5.09S/38.36E, X.–XII.1905, 900 m, Ch. Schröder (ZMHB); 7 ex., Arusha-Ju, 3.22S/36.38E, XI.1905, Katona (NMK); 2 ex., Papyrus-Sumpf, süd ö. Kilimandjaro, I.1906, Ch. Schröder (ZMHB); 2 ex., Panganisteppe, Mombo-Masinde, I.1906, Ch. Schröder (ZMHB); 1 ex., Amani, II.1906, Vosseler (ZMHB); 1 ex., D. Sambesi Geb., X.1906, F. Seiner (ZMHB); 1 ex., Shirati, 1.08S/33.59E, II.1909, Katona (NMK); 6 ex., Lake Ippe, 3.35S/37.45E, 1910, Gotsch (NHMW); 1 ex., Meru, Ngare na Nyuki, 3.09S/36.51E, Sjöstedt (NHRS); 3 ex., Usangu Distr., 8.30S/34.15E, XI.–XII.1910, S. A. Neave (BMNH); 1 ex., Kilimandscharo, 2500–3000 m, am Bismarckhügel oberh. Marangu, südl. Mawenzi am Fuße der Hochweiden, II.1912, Ch. Schröder (ZMHB); 1 ex., Nord-Uluguru, 7.05S/37.35E, 1400–1900 m, II.1914, Methner (ZMHB); 4 ex., Kirumba, XI.1914, II.1915, Holtz (3 ex. ZMHB, 1 ex. ZMUH); 2 ex., Nairobi bei Tanga, 5.05S/39.02E, IV.1915, Methner (ZMHB); 2 ex., Muansa, VI.–II.1915, Holtz (ZMHB); 1 ex., K-D River Camp, Noisinak Bridge, 3500 ft, V.1916, W. A. Lamborn (BMNH); 5 ex., E. Tanganyika, Kigoma, 4.52S/29.36E, IX.1918, R. Mayné (MRAC); 1 ex., Nata, 2.00S/34.24E, II.1960, Dr. Szunyoghy (NMK); 1 ex., Bunduki, Uluguru Mts., 7.05S/37.35E, 6000 ft, XI.1948, J. G. Williams (NMK); 5 ex., Bunduki, Uluguru Mts., Moy. Mgeta, 7.02S/37.34E, 1300 m, IV.–V.1957, P. Basilewsky & N. Leleup (MRAC); 4 ex., Mt. Hanang, 2200–2500 m, 4.26S/35.24E, V.1957, P. Basilewsky & N. Leleup (MRAC); 1 ex., Ngorongoro Rest Camp, 3.11S/35.23E, 2400–2500 m, VI.1957, P. Basilewsky & N. Leleup (MRAC); 4 ex., Mt. Kilimandjaro, Marangu, 3.17S/37.31E, 1600–1700m, VII.1971, P. Basilewsky & N. Leleup (MRAC); 2 ex., Mulukulazo, III.1969, I. A. D. Robertson, sweep net (BMNH); 1 ex., Ngorongoro Crater, 1500 m, Berger et al. (MRAC); 1 ex., Morogoro, 6.49S/37.40E, 600 m, V.–VI.1971, L. Berger et al. (MRAC); 1 ex., Uluguru Mts., Kiroka, 6.50S/37.49E, 725 m, V.1971, L. Berger et al. (MRAC); 1 ex., Uluguru Mts., Kinola, 1500–1750 m, VI.1971, L. Berger et

al.(MRAC); 1 ex., Uluguru Mts., Lukwangle Plateau, 2400–2600 m, VII.1971, L. Berger et al. (MRAC); 5 ex., Uluguru Mts., Chenzema, 7.06S/37.35E, 1700 m, VII.1971, L. Berger et al.(MRAC); 2 ex., Morogoro, I.1974, H. Silfverberg (MZHF); 1 ex., Uzungwa Mts., Mwanihana F. above Sanje, 8.20S/35.58E, 1000 m, VIII.1982, M. Scholtze & N. Scharff, pitfall trap (ZMUC); 1 ex., Uzungwa Mts., Chita FR, 8.31S/35.56E, 750 m, X.1984, M. Scholtze & G. Petersen (ZMUC); 1 ex., Morogoro, 6.49S/37.40E, University Campus, I.1988, T. Pócs, at light (NMK); 1 ex., Uluguru Mts., IV.1991, Werner (CD6); 2 ex., Pangani Falls Forest, 5.20S/38.40E, I.-III.1993 (ZMUC); 11 ex., Mkomazi G. R., 4.10S/38.10E, *Acacia tortilis*, *Acacia mellifera*, *Acacia recifiens*, *Acacia senegal*, *Lannea stuhlmanni*, *Melia volkensii*, *Terminalia sp.A* canopy sampling, VII.–VIII.1994, G. McGavin (BMNH); 150 ex., Mufindi Distr., Iringa, Utzungwa Scarp FR, 8.31S/35.54E, 750 m, III.1996, McKamey et al., canopy UV and fog (ZMUC); 2 ex., 12 km O Iringa, Little Ruawa Riverside Camp, 7.48S/35.48O, IX.2002, U. Heinig (CH). – **Togo:** 8 ex., Bismarckburg, 8.15N/0.55E, XII.1892, V.–VI.1893, L. Conradt (ZMHB); 1 ex., Misahöhe, 6.59N/0.40E, VI.1894, F. Baumann (ZMHB). – **Uganda:** 1 ex., Mulangu, 0.30N/32.02E, ex. Staudinger (MRAC); 2 ex., Bussu, Busoga, 0.45N/33.30E, II.1909, 1910, E. Bayon (MCSN); 1 ex., Mt. Kokanjero, SW of Elgon, 6400 ft, VIII.1911, S. A. Neave (BMNH); 1 ex., Siroko R. nr W foot of Mt. Elgon, 1.29N/34.14E, 3600 ft, VIII.1911, S. A. Neave (BMNH); 2 ex., between Seziwa R. & Kampala, VIII.1911, S. A. Neave (BMNH); 1 ex., Daro/Durro Forest, Toro, 4000–4500 ft., X.1911, S. A. Neave (BMNH); 1 ex., Mpanga Forest, Toro, 0.15N/32.05E, 4800 ft, XI.1911, S.A. Neave (BMNH); 1 ex., Tero Forest, SE Buddu, 0.50S/31.40E, 3800 ft, IX.1911, S. A. Neave (BMNH); 1 ex., Bugoma, Forest, Umyoro, 1.15N/30.53E, 3700 ft, XII.1911, S. A. Neave (BMNH); 2 ex., Kafu R. near Hoima, Kampala Rd., 1.25N/31.22E, 3500 ft, XII.1911, S. A. Neave (BMNH); 1 ex., Between Mitiana & Entebbe, 0.24N/32.03E, 3800 ft, I.1912, S. A. Neave (BMNH); 2 ex., N of L. Isolt, 3700 ft., I.1912, S. A. Neave (BMNH); 1 ex., Shores of L. Isolt, Wamala, 0.04N/31.54E, 3800 ft, I.1912, S. A. Neave (BMNH); 1 ex., S foot & slopes of Mt. Elgon, 5100–5800 ft, 1912 (BMNH); 1 ex., Hima Riv., 0.18N/30.10E, IV.1912, Dr. Bayer (MRAC); 1 ex., Tero, 0.50S/31.40E, VII.1912, C. C. Gowdewy (ZMUH); 3 ex., Mujenje, VIII.1913, Katona (NMK); 9 ex., Kampala, 0.19N/32.35E, X.1920, IX.1947, IV.–VI.1948, XII.1925, A. F. J. Gedye (NMK); 2 ex., Jinja, 0.19N/33.59E, VIII.1924, VIII.1926, A. F. J. Gedye (NMK); 1 ex., Buamba, 7000 ft, X.1926 (ZMUH); 9 ex., Kiryanga, 1.06N/31.04E, IV.1927, H. Hargeraves (5 ex. BMNH, 4 ex. ZMUH); 1 ex., Bwesongo, 0.05N/30.00E, XII.1927, G. D. H. Carpenter (BMNH); 1 ex., Budongo, 1.45N/31.35E, IX.1932, T. Jackson (BMNH); 1 ex., Ruwenzori Range, Kilembe, 0.12N/30.00E, 4500 ft., XII.1934–I.1935, F. W. Edwards (BMNH); 1 ex., Budongo F., 1.45N/31.35E, X.1936, A. F. J. Gedye (NMK); 1 ex., Bubulu, 0.56N/34.16E, X.1938, T. H. C. Taylor (BMNH); 1 ex., Kyagwe, 0.25N/32.50E, VI.1938, T. H. C. Taylor (BMNH); 1 ex., Kampala, 0.19N/32.35E, VI.1940, A. F. J. Gedye (NMK); 3 ex., W of Ruwenzori, 6000 ft, VII.1945, van Someren (1 ex. BMNH, 2 ex. NMK); 2 ex., Bwamba, 0.43N/30.04E, VII.–VIII.1946, VI.1948, v. Someren (NMK); 1 ex., Kampala, 3200 ft, XII.1946, A. F. J. Gedye (USNM); 2 ex., Bwamba Forest, 2500 ft., III.1948, J. G. Williams (NMK); 5 ex., Bwamba, Hakitengya, XI.1948, W. H. R. Lumsden, from fan trap (BMNH); 1 ex., Mafuga Forest, 1.03S/29.52E, III.–VI.1951, T. H. E. Jackson (NMK); 1 ex., Ruwenzori Range, Bugoye, 4500 ft, IX.1952, D. S. Fletcher (BMNH); 1 ex., Ruwenzori Range, Semliki F., 2850 ft, VIII.–IX.1952, D. S. Fletcher (BMNH); 1 ex., Kampala, XII.1952, A. F. Gedye (NMK); 1 ex., Katera, 0.42S/32.00E, XI.1953, T. H. E.

Jackson (NMK); 1 ex., Jinja, 0.19N/33.59E, XII.1954–II.1955, P. S. Corbet, M.V. light trap (BMNH); 2 ex., Bugiri, 0.34N/33.45E, 1400 m, P. VIII.1957, Basilewsky & N. Leleup (MRAC); 1 ex., Kawanda, 0.01S/31.29E, II.–III.1958, P. Whalley, M. V. light trap (BMNH); 2 ex., Entebbe, 0.05N/32.29E, III.1972, Falk (MRAC); 315 ex., Kibale Forest, 0.50N/31.06E, VII.–VIII., X.1983, IV.–V., VII., IX.–XII.1984, I., III.–IV. XII.1985, 1991, IX.1991, M. Nummelin, sweep (MZHF); 265 ex., Budongo Forest nr. Sonso, 1.45N/31.35E, VI.1995, insecticidal canopy fogging of *Cynometra alexandri*, *Rinorea beniensis*, *Teclea nobilis*, *Trichilia rubescens*, Th. Wagner (ZFMK); 3 ex., Semliki Forest, 0.48N/30.09E, II.1997, U. Göllner (ZMHB); 15 ex., Semliki Forest, II.1997, Th. Wagner, insecticidal fogging of *Cynometra alexandri*, *Elais guinensis*, U. Göllner (1 ex. ZMHB, 14 ex. ZFMK); 5 ex., Nyabyeya, 1160 m, 1.40N/31.32E, IX.1997, Th. Wagner (ZFMK); 1 ex., Kibale Forest, nr. MUBS, VIII.1997, M. Boppré (ZFMK); 15 ex., Kibale NP, U. Kanyawara, 0.50N/31.06E, 1600 m, VIII.1998, L. Schmidt (ZFMK); 1 ex., Kasese, Queen Elisabeth NP, Mweya, 0.10N/30.05E, VIII.1998, I. Schmidt (ZFMK). – **Zambia:** 3 ex., Niamadzi R., nr. Nawalia, VIII.1910, S. A. Neave (BMNH); 1 ex., Upper Luangwa R., 14.49S/19.06E, VII.–VIII.1910, S. A. Neave (BMNH); 3 ex., Caia, Zambia, 17.49S/35.23E, X.1911, H. Swale (BMNH); 1 ex., Namwala, III.1913, H. C. Dolman (BMNH); 1 ex., Chilonga, 12.02S/31.21E, VII.1913, on *Citrus* trees infested with black aphids (BMNH); 10 ex., Mwengwa, 13.00S/27.66E, VII.–VIII.1914, H. C. Dollman (BMNH); 14 ex., Lukanga, 14.33S/27.48E, VII.1915, H. C. Dolman (BMNH); 1 ex., Kashitu, 13.45S/28.40E, N. of Broken Hills, VII.1915, H. C. Dolman (BMNH); 1 ex., N'Changa, 13.29S/30.27E, 1931, C. T. MacNamara (BMNH); 1 ex., Sesheke, 16.45S/24.20E, 950 m, III.–VI.1991, W. Slobbe (NNML); 3 ex., Kafue River, Rimo Marine Motel, 15.49S/28.12E, III.1993, U. Göllner (ZMHB). – **Zimbabwe:** 1 ex., Vumba Mts., Nebelwald, ca.1500 m, 19.06S/32.47E, III.2000, U. Heinig (CH); 1 ex., Kariba, Mopani Bay Camp, 16.31S/28.49E, III.2000, R. Beenen (CBe); 1 ex., Chimanimani NP, 19.48S/32.52E, XII.1998, S. Bečvář (CBz); 1 ex. dto., A. Kudrna (CBe).

Monolepta ronbeenenii sp. n.

Description.

Total length. 3.10–3.60 mm (mean: 3.25 mm; n = 10).

Head. Yellow to yellowish-red, mouth-parts including palpi brownish (Fig. 27). Antennae pale yellow, last two to four antennomeres brownish or black, all antennomeres very elongated (Figs 27, 28), length of antennomeres two to three 1.00–1.10 (mean: 1.04), length of antennomeres three to four 0.41–0.62 (mean: 0.46).

Thorax. Prothorax pale yellow to yellowish (Fig. 27). Pronotal width 0.85–1.05 mm (mean: 0.96 mm), pronotum broad, pronotal length to width 0.59–0.64 (mean: 0.61), very finely punctured. Elytra yellow to reddish-yellow, base with transverse black band, often undulate posteriorly (Fig. 27a), subapical usually with large ovate spot, which is often more brownish and not sharply delimited. Elytral length 2.30–2.80 mm (mean: 2.42 mm), maximal width of both elytra 1.45–1.75 mm (mean: 1.65 mm), maximal width of both elytra to length of elytron 0.66–0.71 (mean: 0.69). Scutellum yellow. Meso- and metathorax yellow to yellowish-red, rarely brownish, legs yellow.

(MRAC); 1 ex., Kombo, 1550 m, VII.1954, P. Vanschuytbroeck (MRAC); 1 ex., Secteur Nord, Muramba, 1050 m, XI.1956, P. Vanschuytbroeck (MRAC); 1 ex., Katibombo, camp des gardes, 900 m, X.1957, P. Vanschuytbroeck (MRAC). – **Rwanda:** 1 ex., Kibungu, 2.10S/30.32E, X.–XII.1937, R. Verhulst (MRAC); 30 ex., Rubona, 2.13S/29.43E, “s/haricots”, X.1966, I.S.A.R. (MRAC); 1 ex., Rubona, V.1963, G. Pierrard (MRAC); 2 ex., Icyanya, X.1972, coll. Roggeman (CBe); 4 ex., Mayaga, 2.06S/29.59E, V.1973, coll. Roggeman (CBe). – **Tanzania:** 1 ex., Mujenje, VIII.1913, Kittenberger (ZMHB). – **Uganda:** 1 ex., Koki Country, SW Buddu, 0.25S/31.40E, 4100 ft, X.1911, S. A. Neave (BMNH); 1 ex., SE Ankole, 0.45S/30.45E, 4400–400 ft, X.1911, S. A. Neave (BMNH); 1 ex., Kalwa, IX.1932, T. Jackson (BMNH); 1 ex., Budongo, 1.45N/31.35E, IX.1932, T. Jackson (BMNH); 1 ex., Kawanda, II.–III.1958, at light trap, P. Whalley (BMNH).

Monolepta sharonae sp. n.

Description.

Total length 3.40–4.20 mm (mean: 3.75 mm; n = 8).

Head. Including mouth parts pale red to yellowish-red, with deeply incised transverse post antennal suture (Fig. 33). Antennae pale yellow, usually only tip of last antennomere dark brown, antennomeres 4 to 10 short, less than 4 times long than broad at apex. Length of antennomeres two to three 0.85–0.95 (mean: 0.90), length of antennomeres three to four 0.43–0.50 (mean: 0.47) (Fig. 34).

Thorax. Prothorax entirely pale yellow. Pronotal width 1.00–1.15 mm (mean: 1.08 mm), pronotal length to width 0.60–0.63 (mean: 0.61), finely punctured, pronotum usually significantly narrowed at base. Anterior quarter of elytra black, transverse black spots in the apical third of each elytron (Fig. 33). Elytral length 2.70–3.20 mm (mean: 2.85 mm), maximal width of both elytra 1.80–2.15 mm (mean: 2.04 mm), maximal width of both elytra to length of elytron 0.68–0.73 (mean: 0.71). Scutellum yellowish-red. Meso- and metathorax, coxa, trochanter an basal two third of femur reddish-yellow, outer parts of legs yellow.

Abdomen. Pale yellow.

Female genitalia. Spermatheca small, with small nodulus, slender middle part and slender cornu (Fig. 35). Dorsal part of bursa sclerites broad at base strongly narrowed towards apex (Fig. 36a), ventral part slender, outer margin finely serrate (Fig. 36b).

Male genitalia. Apical part of median lobe strongly narrowed, conical and dorsally bent towards apex (Fig. 37a), basal three quarter broad, parallel-sided (Fig. 37b). Tectum very broad, ventral groove of median lobe wide, narrowed towards the orifice (Fig. 37c). One median endophallic spiculum large and usually bent towards the right in dorsal view, another rpart of median spiculae

short and twisted, ventral spiculae strongly bent, lateral spiculae complex curved, with strong, medially oriented spine at apex (Fig. 37b).

Distribution. This species is known from Nigeria through the Congo Basin to western Uganda and Rwanda, southwards to Central Moçambique and Angola (Fig. 32) and can be expected also in Rwanda, western Tanzania and Zambia.

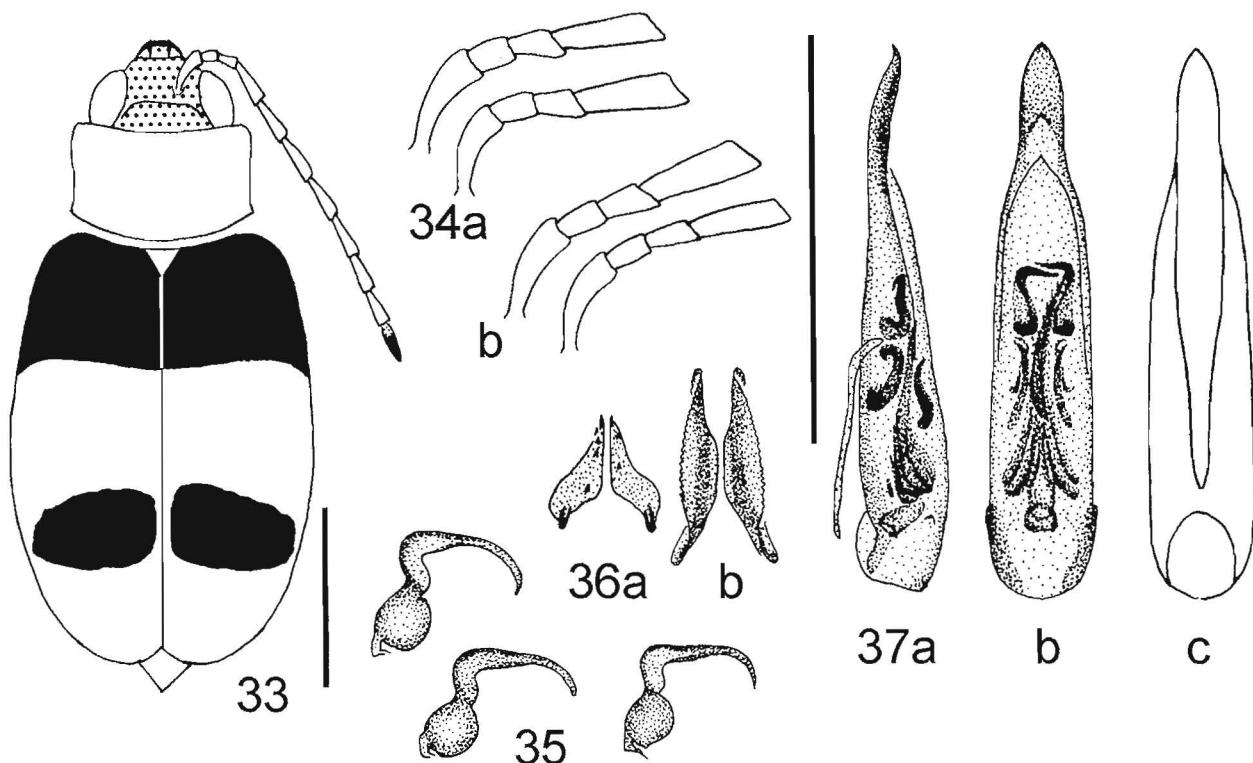
Diagnosis. *Monolepta sharonae* sp. n. is very similar to specimens of *M. vincta*, which has the same coloration type (Fig. 18c). Since it is sympatrically distributed with the very polymorphic *M. vincta*, both species can be clearly distinguished by examination of the male genitalia only (Figs 24, 24, 25, 37), while doubtless identification of females is not possible. *M. sharonae* sp. n. is on average smaller (total length up to 4.2 mm, *M. vincta* up to 4.7 mm), the basal antennomeres are longer (antennomere 3 to 4: 0.43–0.50, *M. vincta*: 0.28–0.37), and the post antennal suture is deeply incised in all known specimens of *M. sharonae* sp. n., but rarely found in *M. vincta*. Since only about ten percent of all available males of both species were examined in this study, there might be some more specimens of the new species beyond the material identified as *M. vincta*.

Etymology. Dedicated to the Chrysomelidologist Sharon Shute, The Natural History Museum, London, UK.

Type material.

Holotype. ♂ “Angola, (A26), Salazar, I.I.A.A., 9.–15.iii.1972 / at light / Southern African Exp. B. M. 1772-I” (BMNH); 9.18S/14.55E

Paratypes. **Cameroon:** 1 ex., Bafoussam, 5.31N/10.25E, II.1969, N. Berti (MNHN). – **Congo:** 1 ex., Ituri, La Moto, Madyu, 2.27N/26.25E, L. Burgeon (MRAC); 1 ex., Beni à Lesse, 0.30N/29.28E, VII.1911, Dr. Murtula (MRAC); 1 ex., Amadi, 3.35N/26.47E, IV.1913, P. van den Plas (MRAC); 1 ex., Rutshuru, 1.11S/29.27E, V.1937, J. Ghesquière (MRAC); 1 ex., P. N. Garamba, 3.40N/29.00E, I/o, V.1950, H. de Saeger (MRAC); 1 ex., P. N. Garamba, I/o/c, VIII.1950, G. Demoulin (MRAC); 1 ex., P. N. Garamba, I/o/2, X.1950, H. de Saeger (MRAC); 2 ex., P. N. Garamba, II/gd, V.1951, H. de Saeger (MRAC); 3 ex., P. N. Garamba, Ppk/60/d, XII.1951, H. de Saeger (MRAC); 2 ex., P. N. Garamba, II/fd, XII.1951, H. de Saeger (MRAC); 1 ex., P. N. Garamba, Tori, III.1952, H. de Saeger (MRAC); 1 ex., P. N. Garamba, Ndelele, 4.22N/29.47E, VI.1952, H. de Saeger (MRAC); 1 ex., P. N. Garamba, PFSK, VI.1952, H. de Saeger (MRAC); 1 ex., P. N. Garamba, Anie, VII.1952, H. de Saeger (MRAC); 2 ex., P. N. Garamba, II/jd/9, I., VIII.1952, H. de Saeger (MRAC). – **Moçambique:** 1 ex., Beira, 19.49S/34.52E, VI.1900, G. A. K. Marshall (BMNH). – **Nigeria:** 1 ex., Yengre, 10.14N/8.48E, VIII.1973, R. Linnavuori (MZHF). – **Rwanda:** 1 ex., Ruhengeri, source Kirii, 1.35S/29.40E, 1800–1825 m, X.1934, G. F. de Witte (MRAC); 1 ex., Kagogo, 1.22S/29.46E, 1990 m, I.1953, P. Basilewsky (MRAC). – **Uganda:** 1 ex., Daro Forest, Toro, 1.05S/31.00E, 4000–4500 ft, X.1911, S. A. Neave (BMNH).



Figs 33–37: *Monolepta sharonae* sp. n. 33: colour pattern; 34: basal antennal articles (a: ♂, b: ♀); 35: three different spermathecae; 36: bursa-sclerites (a: dorsal, b: ventral); 37: median lobe (a: lateral, b: dorsal, c: ventral, without endophallic structures).

Monolepta naumannii sp. n.

Description.

Total length: 3.60–4.80 mm (mean: 4.23 mm; n = 10).

Head. Yellow, some specimens with pale brownish vertex (Fig. 38b), labrum, mandibles, maxillary and labial palpi brown. Antennae yellow, usually only last antennomere brown, rarely last two to three antennomeres brown (Fig. 38c). Antennae long, antennomeres 4 to 10 slender, elongate. Length of antennomeres two to three 1.00–1.05 (mean: 1.01), length of antennomeres three to four 0.37–0.43 (mean: 0.39).

Thorax. Prothorax entirely pale yellow. Pronotal width 1.10–1.45 mm (mean: 1.26 mm), pronotal length to width 0.58–0.61 (mean: 0.59), very finely and irregularly punctured. Anterior third of elytra black or dark brown, in 20 % of specimens examined reddish brown, middle pale brownish-yellow, each elytron with black (10 %; Fig. 38b), brown (70 %; Fig. 38c) or without (20 %; Fig. 38a) subapical spot, this spot with reddish outer margins (Figs 38b, c). Elytral length 2.80–3.50 mm (mean: 3.18 mm), maximal width of both elytra 1.90–2.50 mm (mean: 2.31 mm), maximal width of both elytra to length of elytron 0.71–0.75 (mean: 0.73). Scutellum yellow or yellowish-red. Meso- and metathorax and legs brownish-yellow, apex of femur, tibia and tarsi paler yellow.

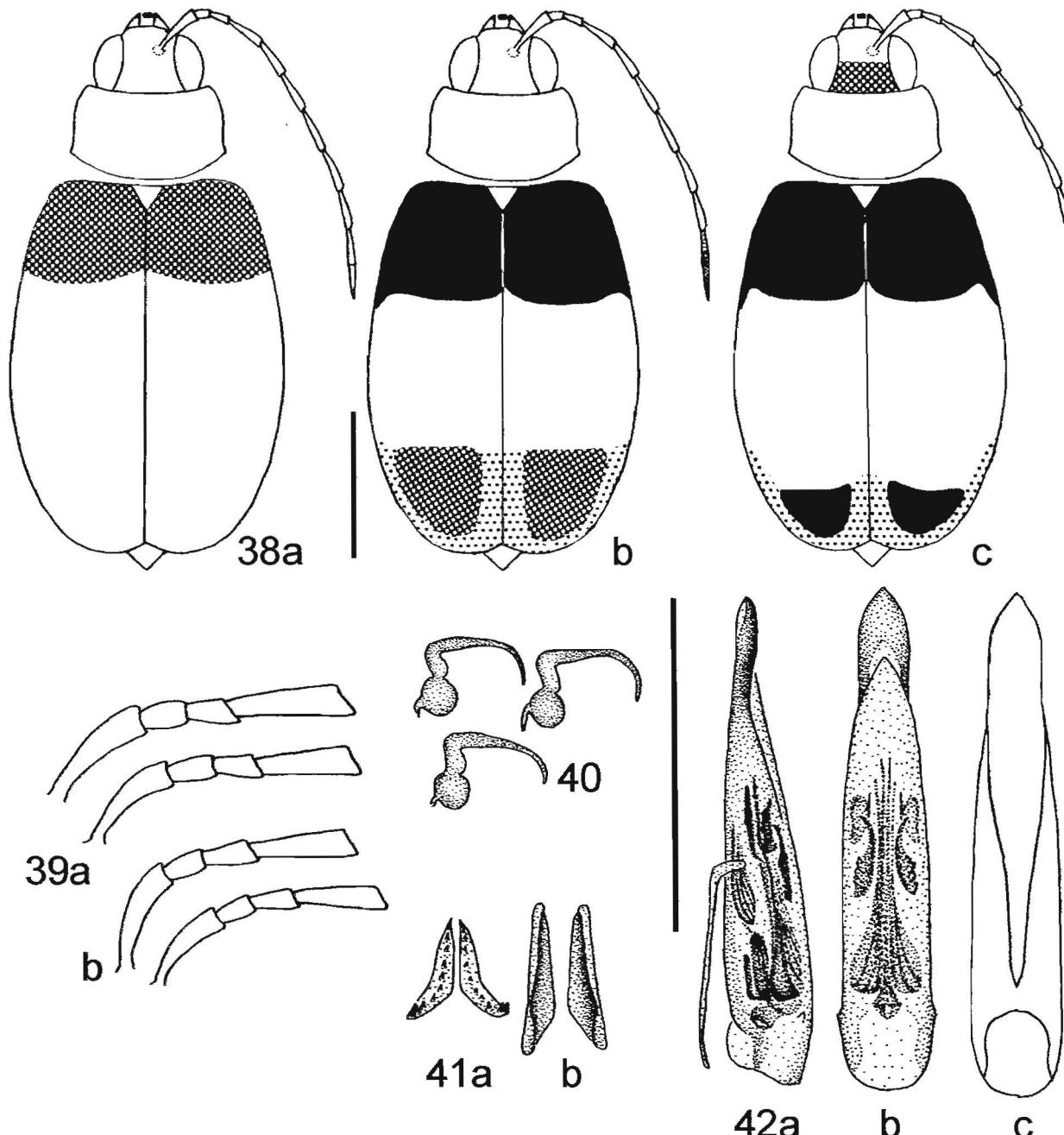
Abdomen. Brownish-yellow.

Female genitalia. Spermatheca small, with small nodulus, slender middle part and long and slender cornu (Fig. 40). Dorsal part of bursa sclerites slender, with small spines (Fig. 41a), ventral part slender, outer margin finely serrate (Fig. 41b).

Male genitalia. Apical part of median lobe narrow, conical towards apex, basal three quarter parallel-sided (Fig. 42). Tectum broad, conical (Fig. 42b), ventral groove of median lobe wide, strongly narrowed towards the orifice (Fig. 42c). Median endophallic spiculae slender, ventral spiculae strong, hook-like, lateral spiculae broad, short, plate-like medially with spur (Fig. 42b).

Distribution. Known from wet tropical forests from eastern Congo and Rwanda to southern Uganda, Western Kenya (Kakamega Forest) and north-west Tanzania (Ukerewe Island in Lake Victoria; Fig. 17).

Diagnosis. *Monolepta naumannii* sp. n. can be distinguished from all other species of the *Monolepta vincula*-group by the elytral coloration where subapical elytral spots have red outer margins. A very similar coloration is found in some specimens of *M. quadrizonata* Laboissière, 1940, which occurs syntopically with *M. naumannii* sp. n. at some locations, but is much larger (total length 5.50–6.40 mm), elytra are very slender, and genital characters of both sexes are very different (WAGNER



Figs 38–42: *Monolepta naumannii* sp. n. 38: colour pattern; 39: basal antennal articles (a: ♂, b: ♀); 40: three different spermathecae; 41: bursa-sclerites (a: dorsal, b: ventral); 42: median lobe (a: lateral, b: dorsal, c: ventral, without endophallic structures).

2003b). Specimens without apical spot and reddish-brown elytral base are very similar to some *M. umbrobasalis* Laboissière, 1940, which also occurs syntopically with *M. naumannii* sp. n. along the Albertine Rift and is very similar in size (total length, 3.30–4.10 mm) and external characters, but has very different genital characters including a broad and apically depressed median lobe (WAGNER 2002).

Etymology. Dedicated to the late Clas Michael Naumann, my unforgotten mentor.

Type material.

Holotype: ♂ “Uganda, District Masindi, Budongo Forest n. Sonso, 1°45'N, 31°35'E, 1.–10.VII.95, Th. Wagner leg. / T.r. 15 / 2” (ZFMK)

Paratypes: Congo: 1 ex., Malela, 4.22S/26.08E, XII.1913, L. Burgeon (MRAC); 1 ex., Alto Uelle, fl. Ouru, 2.07N/31.14E, II.1927, F. S. Patrizi (MCSN); 1 ex., Mongbwalu, Kilo, 1.49N/30.06E, 1938, Mme Scheitz (MRAC); 1 ex., Stanleyville, Ongoka, riv. Lowa, 1.23S/26.02E, IV.-IX.1952, J. Pantos (MRAC); 1 ex., P. N. Garamba, Mt. Embe, 4.40N/29.33E, IV.1952, H. de Saeger (MRAC); 4

(MRAC); 4 ex., P. N. Garamba, Aka, 3.50N/28.57E, V.1952, H. de Saeger (MRAC); 3 ex., P. N. Garamba, Dedegwa, 4.35N/29.43E, IV., V.1952, H. de Saeger (MRAC); 1 ex., Kivu Sud, Irangi, 1.54S/28.27E, 900 m, X.1993, insecticidal tree fogging of *Carapa grandiflora* (Meliaceae), Th. Wagner (ZFMK). — **Kenya:** 8 ex., Kakamega Forest near Buyangu, 0.18N/34.53E, IX.2001, X.2002, some by insecticidal tree fogging of *Teclea nobilis*, Th. Wagner (ZFMK). — **Rwanda:** 1 ex., Gisakura, 2.00S/29.50E, VI.1972, coll. Roggeman (CBe). — **Tanzania:** 14 ex., Ukerewe Island, 2.09S/32.52E, ex. coll. Conrads (NMK). — **Uganda:** 2 ex., Kampala, 0.19N/32.35E, VI.1940, A. F. J. Gedye (BMNH); 1 ex., Kibale Forest, 0.50N/31.06E, 1983, M. Nummelin (MZHF); 4 ex., same label as holotype, insecticidal fogging of *Trichilia rubescens* (Meliaceae) and *Cynometra alexandri* (Caesalpiniaceae) (ZFMK); 2 ex., Semliki Forest, 0.48N/30.08E, II.1997, Th. Wagner (ZFMK).

Key to species

Afrotropical *Monolepta*-species, which are characterized by a black transverse band at the elytral base, a further transverse band or isolated black spots in the apical third of elytra, where other parts of elytra are yellow or yellowish-red, can be distinguished after the following key. It can be used for specimens up to 5.60 mm total length. Larger specimens (up to 6.70 mm) with the colour pattern mentioned above belong to *M. quadrizonata* Laboissière, 1940, which was revised elsewhere (WAGNER 2003b). Excluded from this key are also *Monolepta*-species which have a mid-elytral transverse black band, black outer elytral margins and often a red elytral suture like the abundant and widely distributed *M. elegans* Chevrolat 1837, *M. vinosa* Gerstaecker, 1871, *M. cruciata* Guerin-Menéville, 1858, and some other species, which will be revised in the near future.

1 Pronotum very broad (prontal length to width: 0.54–0.58; Fig. 7); second antennomere particularly in males very short (length of second to third antennomere: 1.00–1.40, length of third to fourth antennomere: 0.20–0.36; Fig. 8); small (total length: 3.00–4.20 mm); spermatheca of peculiar shape (Fig. 9); apical half of median lobe very slender (Fig. 11); known from savannas of West Africa towards north-eastern Congo *Monolepta buquetii* Chevrolat, 1837

— Pronotum less broad (prontal length to width: 0.58–0.67); second antennomere more elongated (length of second to third antennomere: 0.75–1.10, length of third to fourth antennomere: 0.28–0.62); often larger than 4.20 mm; spermatheca of different shape; median lobe less narrowed in the apical half, exceptions are *M. ronbeenenii* sp. n. and very few specimens of *M. vincata*, which differ in endophallic armature (Figs 25, 31) 2

2 Basal antennomeres elongated and slender, second antennomere of same length or longer than third (length of second to third antennomere: 1.00–1.10, Figs 28, 39); elytra usually with large isolated spot in the apical third, instead of a transverse band, other parts of elytra more reddish-yellow (Figs 27, 38); restricted to Guineo-Congolian forests in northern Central and western East Africa (Figs 17, 32) 3

— Basal antennomeres less elongated, second antennomere same length or shorter than third (length of second to third antennomere: 0.75–1.00, Figs 2, 13, 19, 34); elytra either with smaller isolated spot or transverse band in the apical third (Figs 1, 12, 16, 33), other parts pale yellow to yellow; distributed throughout tropical Africa; check of male genitalic structures is necessary in most specimens to ensure a correct identification, single females can sometimes not be allocated to species without doubt 4

3 Very small (total length: 3.10–3.60 mm); elytra slender (width of both elytra to length of elytron: 0.59–0.64, Fig. 27); third antennomere very long (length of third to fourth antennomere: 0.41–0.62, Fig. 28); Central African Republic towards western Uganda and Rwanda (Fig. 17) *Monolepta ronbeenenii* sp. n.

— Larger (total length: 3.60–4.80 mm); elytra broad (width of both elytra to length of elytron: 0.71–0.75, Fig. 38); third antennomere less elongated (length of third to fourth antennomere: 0.37–0.43); known from north-eastern Congo towards western Kenya (Kakamega Forest), Rwanda and north-western Tanzania (Ukerewe Island) *Monolepta naumannii* sp. n.

4 Third antennomere significantly longer than second (length of second to third antennomere: 0.75–0.88, Fig. 13), and about half as long as fourth antennomere (length of third to fourth antennomere: 0.46–0.54); pronotum comparatively slender (prontal length to width: 0.63–0.67); known from Eritrea, northern Somalia, Arabian Peninsula, Israel and Jordan (Fig. 17) *Monolepta lepida* Reiche, 1858

— Third antennomere shorter (length of second to third antennomere: 0.86–1.00; length of third to fourth antennomere: 0.30–0.50); pronotum broader (prontal length to width: 0.58–0.65); tropical Africa only 5

5 On average larger (total length: 3.80–5.60 mm); median lobe homogeneously conical and slightly widened at apex (Fig. 5); north-eastern Congo and Uganda towards the Cape, most abundant and widely distributed in southern Africa (Fig. 6); specimens which occur syntopically with *M. vincata* are significantly larger than those *Monolepta melanogaster* (Wiedemann, 1823)

- On average smaller (total length: 3.25–4.75 mm); median lobe narrowed and parallel-sided at apex (Figs 23, 24, 37); throughout tropical Africa but not known from the Republic of South Africa, and rare in other countries of southern Africa 6
- 6 Third antennomere more elongated (length of third to fourth antennomere: 0.43–0.50, Fig. 34); transverse post antennal suture deeply incised, pronotum pale yellow (Fig. 33); lateral endophallic spiculae strong, curved inwards, hooked at apex (Fig. 37); Nigeria through Congo basin towards western Tanzania, Zambia ***Monolepta sharona* sp. n.**
- Third antennomere shorter (length of third to fourth antennomere: 0.28–0.37, Fig. 19); transverse post antennal suture usually not incised, pronotum often red, rarely black; endophallic armature different (Figs 23, 24, 25); throughout tropical Africa with exception of South Africa
 - ***Monolepta vincta* Gerstaecker, 1871**

REFERENCES

CHAPUIS, F. (1879): Phytophages Abyssiniens du musée civique d'histoire naturelle de Gênes. *Annali di Museo Civico Storia Naturale Genova* **15**: 5–31.

CHEVROLAT, L. A. A. (1837): P. 407 *Monolepta*, in: DE-JEAN (ed.) Catalogue des Coléoptères de la collection de M. le Compte Dejean. 3rd. edition, revue, corrigée et augmentée, fasc. 5. Paris.

GERSTAECKER, A. (1871): Beitrag zur Insektenfauna von Zanzibar. *Archiv für Naturgeschichte* **37**(1): 42–86.

JOANNIS, L. de (1866): Gallerucides, tribu de la famille des Phytophages, ou Chrysomelines. *L'Abeille – Mémoires d'Entomologie* **3**: 1–168.

LABOISSIÈRE, V. (1920a): Diagnoses de Galerucini nouveaux d'Afrique (Col. Chrysomelidae). *Bulletin de la Société entomologique de France* **1920**: 50–53.

LABOISSIÈRE, V. (1920b): Diagnoses de Galerucini nouveaux d'Afrique (Col. Chrysomelidae). *Bulletin de la Société entomologique de France* **1920**: 98–101.

LABOISSIÈRE, V. (1940): Galerucinae. Exploration du Parc National Albert **31**: 1–98. Institut des Parcs Nationaux du Congo Belge, Bruxelles.

REICHE, L. (1858): Espèces nouvelles ou peu connues de Coléoptères, recueillies par M. F. de Saulcy. *Annales de la Société entomologique de France* **6**: 1–60.

WAGNER, Th. (2000a): New *Monolepta* species (Coleoptera: Chrysomelidae) from Eastern Africa. *Entomologische Zeitschrift* **110**: 34–40.

WAGNER, Th. (2000b): Revision of afrotropical *Monolepta* species (Coleoptera, Chrysomelidae, Galerucinae). Part I: Species with red and black coloured elytra, pronotum and head, with description of new species. *Entomologische Zeitschrift* **110**: 226–237.

WAGNER, Th. (2001): Revision of Afrotropical *Monolepta* Chevrolat, 1837 (Coleoptera: Chrysomelidae, Galerucinae). Part II: Species with red elytra, pronotum and elytra, with descriptions of new species. *Bonner Zoologische Beiträge* **50**: 49–65.

WAGNER, Th. (2002): Revision of Afrotropical *Monolepta* species (Coleoptera, Chrysomelidae, Galerucinae). Part III: Species with red elytra and yellow prothorax, including description of new species. *Deutsche Entomologische Zeitschrift* **49**: 27–45.

WAGNER, Th. (2003a): Present status of a taxonomic revision of afrotropical *Monolepta* and related groups (Galerucinae). Pp. 133–146 in: FURTH, D. G. (ed.) Special Topics in Leaf Beetle Biology. Proceedings V. International Symposium on the Chrysomelidae, Foz do Iguaçu 2000. Pensoft.

WAGNER, Th. (2003b): Revision of afrotropical *Monolepta* Chevrolat, 1837 (Coleoptera, Chrysomelidae, Galerucinae). – Part IV: Species with red head and thorax and black elytra or black elytra with red apex, with description of new species. *Annales Sciences Zoologiques, Miscellanea* **49**: 37–89.

WAGNER, Th. (2004): Phylogeny of Afrotropical *Monolepta* and related taxa (Galerucinae). Pp. 75–84 in: JOLIVET, P., SANTIAGO-BLAY, J. A. & M. SCHMITT (eds) New Developments on the Biology of Chrysomelidae. Academic Publishing bv.

WEISE, J. (1903): Afrikanische Chrysomeliden. *Archiv für Naturgeschichte* **69**: 197–226.

WEISE, J. (1909): 7. Coleoptera, 12. Chrysomelidae und Coccinellidae. Pp. 153–267 in: SJÖSTEDT, Y. (ed.) Wissenschaftliche Ergebnisse der schwedischen zoologischen Expedition nach dem Kilimandscharo, dem Meru und den umgebenden Massaisteppen Deutsch-Ostafrikas 1905–1906. Palmquist Aktiebolag, Stockholm.

WIEDEMANN, C. R. W. (1823): Zweihundert neue Käfer von Java, Bengalen und dem Vorgebirge der guten Hoffnung. *Zoologisches Magazin* **2**(1): 3–153.

WILCOX, J. A. (1973): Chrysomelidae: Galerucinae: Luperini: Luperina. Pp. 433–664 in: JUNK, W. (ed.) Coleopterorum Catalogus Suppl. 78 (3). 's-Gravenhage, Junk.

Author's address: Dr. Thomas WAGNER, Universität Koblenz-Landau, Institut für Integrierte Naturwissenschaften – Biologie, Universitätsstr. 1, D-56070 Koblenz; e-mail: thwagner@uni-koblenz.de

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Bonn zoological Bulletin - früher Bonner Zoologische Beiträge.](#)

Jahr/Year: 2005

Band/Volume: [53](#)

Autor(en)/Author(s): Wagner Thomas

Artikel/Article: [Revision of the *vincta* Species-group of *Monolepta* Chevrolat, 1837
from Africa, Arabia and the Near East \(Coleoptera: Chrysomelidae, Galerucinae} 255-
282](#)